

Air Conditioning & Refrigeration News

The Newspaper of the Industry

Trade Mark Registered U. S. Patent Office.
Member Audit Bureau of Circulations. Member Associated Business Papers.

Written to Be Read on Arrival

VOL. 31, No. 1, SERIAL NO. 598
ESTABLISHED 1926Entered as second-class
matter Aug. 1, 1927

DETROIT, MICHIGAN, SEPTEMBER 4, 1940

Copyright, 1940, by
Business News Pub. Co.ISSUED EVERY WEDNESDAY
\$4.00 PER YEAR

IN THIS ISSUE

Camera Hobby Isn't ALWAYS Expensive

Have you been bitten by the camera bug? If you have, you may have given some thought to how it could be useful to you in a business way. Two fellows who run a distributorship in Dallas tell you how they put a camera hobby to work for them—both movies and stills. **Page 6.**

Compressor Efficiency

When you read about "checking compressor efficiency" you visualize a big row of testing racks in a factory, and some complicated instrument panels. But compressor efficiency can be checked in the field, and with home-made apparatus, too. Read how on **page 7.**

Jack Makes Jack Out of Kitchen

If you're a good appliance dealer, you've probably got an all-electric kitchen in your home. Ever think about using it as a showroom? That's what Jack Milton, St. Louis dealer, has done, and he has hung up an imposing list of sales of all-electric kitchens. **Page 2.**

Hospitals Are Different

Air conditioning for hospitals involves a lot of considerations that don't come up in the ordinary type of air conditioning work. Some of these problems are discussed, and a layout of a system for a Minnesota hospital is shown, in an article on **page 12.**

Cartoons & Water Coolers

If you have a favorite among the cartoonists that draw for the New Yorker, Esquire, and other similar magazines you will be interested in seeing what they turn out when they turn their talents to a refrigeration product. **Page 10.**

Excessive Freezing Times

If you've had service calls involving excessive freezing times on counter-type ice cream freezers you'll find this week's instalment of the series on counter freezer servicing particularly valuable. **Page 11.**

FTC Says Public Is Gullible on Air Conditioning

WASHINGTON, D. C.—The Federal Trade Commission apparently feels, as indicated by its findings as to facts in the case of Air Conditioning Textiles, Inc., that while the public has been made quite conscious of the term "air conditioning," at the same time it knows but a very little about the principles of the science.

The case involved a manufacturer who claimed that a soap it offered would "air condition the human body" by reducing the temperature and humidity of the same. The FTC ordered the firm to desist from making such claims, and in so doing commented:

"Members of the purchasing public have been made conscious of the term 'air conditioning' and of the fact that the principle of 'Air conditioning' is a new, scientific development advancing and contributing to bodily comfort; but many of them are entirely unfamiliar with the manner of operation of the principle of air conditioning and the limitation thereon."

The FTC further found that while such product might impart to the skin "a slight cooling and soothing sensation, it has no effect on the actual temperature of the body."

Packard Sold 500 Cars That Were Air Conditioned

DETROIT—More than 500 air conditioned Packard passenger cars have been sold up to the present time, according to W. M. Packer, vice president in charge of distribution, Packard Motor Car Co. Mr. Packer feels that this is a good showing, considering the fact that the purchaser must pay \$275 extra for the complete cooling system.

Since the first air conditioned Packard car was placed on the market early this year, Dallas, Tex., has led the country in sales, with over 80 cars delivered to customers through Packard-Dallas, Inc.

Guy M. Godley, sales manager of the Dallas distributor, reports that air conditioned models in the Pack-

(Concluded on Page 16, Column 3)

Fiske, Field To Help Register Engineers For Defense Work

NEW YORK CITY—David L. Fiske, executive secretary of American Society of Refrigerating Engineers, and Col. Crosby Field, president of Flakice Corp. and an A.S.R.E. past president, have been appointed members of a special committee to work under the National Resources Planning Board in preparing a national roster of scientific and specialized personnel for use in national emergency.

The four councils represented on the science committee of the National Resources Planning Board—the Social Science Research Council, Council of Learned Societies, American Council on Education, and National Research Council—are cooperating, each in its own particular field, in the program of registration. Dr. Leonard Carmichael, president of Tufts College, has been appointed director of the roster.

Mr. Fiske and Mr. Field will serve as members of an evaluation com-

(Concluded on Page 4, Column 5)

O'Donnell Heads Coast Sales of Westinghouse

MANSFIELD, Ohio—J. F. O'Donnell, assistant sales manager of Westinghouse merchandising division, has been named director of the division's Pacific Coast sales operations.

C. A. Meier, who held this position up to the time of Mr. O'Donnell's appointment, has been named manager of utility sales for the Pacific Coast area. He will continue to maintain headquarters at San Francisco.

Mr. O'Donnell's first contact with the Westinghouse organization came after his graduation from Catholic University of America in 1915, when he worked with Westinghouse distributors in Washington, D. C. and Rochester, N. Y. for several years.

July Range Shipments 54% Above 1939

NEW YORK CITY—Electric range shipments reported during July by members of National Electrical Manufacturers Association totaled 29,626 units, a gain of better than 54% over the 19,249 ranges shipped during the same month last year.

Sales for the first seven months of the year showed a 36% increase over the corresponding period of 1939, 258,356 ranges being shipped during that portion of the current year, against 189,953 shipped during the first seven months of 1939.

Rema To Hold Fall Conclave At French Lick

Oct. 9, 10, 11 Dates of 3-Day Session on Association's Affairs

FRENCH LICK SPRINGS, Ind.—Members of Refrigeration Equipment Manufacturers Association will hold their 1940 fall meeting here on Oct. 9, 10, and 11, reports E. A. Vallee, vice president and sales manager of Automatic Products Co. and president of Rema.

Decision to hold the fall meeting was prompted by the success of the association's spring session, also held at French Lick Springs, Mr. Vallee said. This meeting drew the largest attendance of any in the association's experience.

Program for the meeting is being developed by a committee composed of J. D. Colyer, Wolverine Tube Co.; Harold T. Hulet, General Electric Co.; and E. J. Tweed, Dole Refrigerating Co. In addition to the formal program, most of the association's committees are expected to hold sessions during the three-day meeting. A meeting of the board of directors also is on the schedule.

Among matters of importance to be taken up at the meeting will be

(Concluded on Page 4, Column 5)

General Controls To Occupy New Plant

GLENDALE, Calif.—General Controls Co., manufacturer of pressure, temperature, and flow controls, will move about Sept. 20 into a new and permanent factory now being completed on an 11-acre site at 801 Allen Ave. in Glendale.

New plant will house the general offices, research and testing laboratories, and complete and new manufacturing facilities. The Los Angeles screw machine division of General Controls also will be incorporated in the new plant.

G-E Claims Capacity Boost In New Units

BLOOMFIELD, N. J.—Increase in capacities of nearly 25% is claimed in the new line of commercial condensing units just announced by the air conditioning and commercial refrigeration department, General Electric Co.

The new units are also said to be easier to install, lighter in weight, and improved in appearance. The addition of 10 new types brings the complete line, including both air and water-cooled units, to 24 sizes ranging from 1/4 to 3 hp. (G-E also manufactures condensing units up to 60 hp. for large refrigeration and air conditioning systems.)

Capacity increases in the new line are attributed to refinements in engineering design, notably in a new valve and valve plate assembly and in the condensers.

The new valve plate incorporates

(Concluded on Page 16, Column 1)

Servel Profit \$1,237,498 For Third Quarter

EVANSVILLE, Ind.—Net profit of \$1,237,498, the equivalent of 69 cents a common share, has been reported by Servel, Inc. for its third fiscal quarter, which ended July 31.

Profit for the corresponding quarter of last year was \$1,241,417, also equal to 69 cents a common share.

Defense Program May Boom Sales Of Frozen Foods

CHICAGO—Increased markets for quick-frozen foods as a result of the national defense program were predicted by A. E. Stevens, vice president of Frosted Foods Sales Corp., New York City, in an address before the frosted foods session of the recent National Food Distributors Association convention here.

"Increasing employment from national defense," Mr. Stevens declared, "is widening public purchasing power. More people have more money to spend. If prices go higher, this means an increased demand for frozen foods."

"National defense by shifting population, through the establishment of training camps and erection of war industrial plants, like airplane and munition factories, is creating many new marketing areas. The purchasing power in such areas, particularly the war industrial centers, will be high and will afford opportunities of marketing quality foods in profitable volume."

The 1940-41 pack of frozen foods, Mr. Stevens said, will be from 25 to 50% higher than the previous pack. Both an increase in sales outlets and a steady expansion in demand have contributed to this larger pack, he said.

New merchandising trends, Mr. Stevens said, include a tendency toward standardizing quick frozen foods packages to contain a pound

(Concluded on Page 16, Column 1)

Seeger Vegetable Case Has Enclosed Front

ST. PAUL—A new full-glass, closed type of vegetable display case, with disappearing sliding glass doors on the front top level of the case, has recently been introduced by the Seeger Refrigerator Co.

This feature is claimed to prevent a waste of refrigeration and to eliminate the necessity of unloading at night.

Known as the "V8" model, the new case has "ventilating-air conditioning" temperature and humidity control.

A blower at one end of the case circulates the conditioned air con-

(Concluded on Page 16, Column 4)

Commercial Volume Up 25% In July

DETROIT—Sales of commercial refrigeration equipment by Nema manufacturers to distributors and dealers showed increases in July, 1940 over July, 1939 ranging around 25 to 35% in most classifications.

In condensing units sold separately (not part of self-contained equipment) in sizes ranging from 1/4 to 50 hp. the total world sales in July of this year was 11,592 units, as compared with 8,616 units for the corresponding month last year, a gain of 35%.

Dollar volume of all commercial refrigeration sales by the Nema group this July was \$2,285,975 as compared with \$2,073,494 last July.

Export sales did not show up so badly, considering the fact that the

(Concluded on Page 16, Column 5)

Cecil Boling Resigns As M-A-D Executive

RIDGEFIELD, N. J.—Cecil Boling has resigned his position as vice president and director of Melchior, Armstrong, Dessau Co., refrigeration parts and supplies wholesaling and exporting firm.

Mr. Boling had been with Melchior, Armstrong, Dessau Co. for the past six and one-half years.

Household Unit 7-Months' Sales Over 2 Million

July Sales Set New Monthly Record at 256,000 Boxes

DETROIT—Setting an all-time monthly record for the third successive month, world shipments of household electric refrigerators during July totaled 256,000 units, to bring the mark for the first seven months of the year above the 2,000,000-unit level, according to estimates by AIR CONDITIONING & REFRIGERATION NEWS.

The July all-industry total was approximately 35,000 higher than the previous high record of shipments for the month, 221,000, established in 1936, and exceeded by 78,000 the 178,000 units shipped by U. S. manufacturers in July of 1939.

For the first seven months of this year, world shipments of household refrigerators totaled 2,178,000 units, more than in the entire year of 1939, when estimated shipments amounted to 2,085,000 units. It now appears almost certain that 1940 will be the biggest year the household refrigeration industry has ever experienced, surpassing the "high year" of 1937, when world shipments reached 2,559,000 units.

July was the sixth successive month this year in which world shipments have totaled 250,000 units or

(Concluded on Page 4, Column 3)

Kansas City Sales Gains Continue

KANSAS CITY, Mo.—Household electric refrigerator sales in Kansas City in July totaled 1,691 units, a gain of 14% over July, 1939 and an increase of 66% over July, 1938, according to reports made to The Electric Association of Kansas City.

Sales total in Kansas City for the first seven months was 13,646 refrigerators, compared with 11,164 refrigerators in 1939, an increase of 22%.

Sales of electric ranges by Kansas City dealers is running 65% ahead of last year, the Association reports.

Norge Sets Up an Iowa Distributorship

WATERLOO, Iowa—A new organization, the Norge Sales Corp. of Iowa, has been formed here to serve as distributor in this area for all Norge products, according to announcement by M. G. O'Harra, of Detroit, vice president in charge of sales for the Norge Division Borg-Warner Corp.

The new distributorship is headed by Ray C. Roy, former Norge divisional sales manager. It has taken over the building and equipment of Adams Wholesalers, Inc., at 412-414 Sycamore St., former Norge distributor, who has retired from the home accessory field. Territory served will include nearly all of the Norge dealer points in Iowa and a portion of western Illinois.

Refrigerator Tax Drops In July

WASHINGTON, D. C.—Excise tax collections on mechanical refrigerators during July totaled only \$838,710.83, a drop of more than 46% from the \$1,540,247.31 total reported for July, 1939, according to figures released by the Bureau of Internal Revenue.

Jack Milton Sells Electric Kitchens By Using His Own As a 'Convincer'



Mr. Milton, head of Milton Appliance Co., St. Louis General Electric dealership, admires the completely equipped kitchen in his own home which he uses as a "closing room" for promising prospects.

ST. LOUIS — The dealer who "lives" with his merchandise, day in and day out, can do a more intelligent job of selling, believes Jack Milton, president of Milton Appliance Co., General Electric dealership here. By using his own home as a "closing room," Mr. Milton has piled up an

imposing list of all-electric kitchen sales, all of them for \$900 or above, in the last couple of years.

Prospects who express interest in an all-electric kitchen, or who are doubtful of the operating claims made for any particular appliance, are routed from the company show-

rooms at Hebert and Grand Ave., to midtown St. Louis, to the "Ranch House," Mr. Milton's own suburban home eight miles away.

In this modern home, matching those most popular in the city's newer districts, Mr. Milton has put to actual use every G-E appliance handled by his company. In the kitchen are refrigerator, range, dishwasher, disposal, clock, fans, ventilator, and air circulator. In the basement is a washer and other laundry equipment, electric water heater, and remote control radio.

FAMILY LENDS SUPPORT

The home, in addition to being a working example of how appliances can be used for better living, has given Mr. Milton and his staff a "closing room" of indisputable value. As every-day occupants of the home, Mrs. Milton and the children can back up every claim Mr. Milton makes. This is especially valuable when both husband and wife visit the home as prospects.

Naturally, not all the company's prospects are taken to the "Ranch House." Appointments are usually made a day or two in advance, both for the convenience of the Milton family and to get husband and wife to visit the home together.

Sometimes, when the prospect's interest in and ability to buy a completely planned electric kitchen are assured, Mr. Milton invites the prospect and his wife to dinner at the "Ranch House." There the wife can help Mrs. Milton prepare the meal, learning how to use the appliances at first-hand. Over the coffees, many a first-call sale has been closed.

48 Cooking Schools For Chicago

CHICAGO — A total of 48 all-electric cooking schools have been conducted in Chicago this year as part of the 1940 demonstration program, it was announced at a recent meeting of the advisory committee of Commonwealth Edison Co.

Merle J. Lucas, supervisor of expositions and demonstrations, revealed that these 48 electric cooking schools included 425 individual cooking demonstrations, and were viewed by approximately 377,000 people. These were in addition to those conducted by the company's home service division at headquarters and other locations.

The schools were of two major types—cooking demonstrations in display booths, and demonstrations

on the stage. Booth demonstrations were in connection with displays at expositions, while the stage demonstrations in most cases were conducted in cooperation with some outside organization. A related activity of the utility's activity is financial cooperation with dealers who want to install permanent electric kitchen exhibits in their stores for demonstration purposes.

Included in this year's schools were 22 George R. Scott community cooking schools, held in Chicago churches; 12 schools sponsored by Chicago Herald-American in churches and theaters; and seven schools conducted in cooperation with neighborhood newspapers and held in theaters or lodge halls.

Sam's Selling Slants



V. E. ("Sam") Vining, merchandising manager for Proctor Electric Co., is the industry's most colorful salesman. This is the twelfth of a series of Sam's famous "Selling Slants" messages to salesmen. An earlier series was published in the News in 1937, and later was published as a pocket-sized book.

POSTAGE STAMPS

I ran across a bit of perfect selling courtesy the other day in the post office at Oak Park, Ill.

I bought 20 postage stamps, and the girl who waited on me put them in an old envelope taken from a pile stacked at her window.

I'll bet the postmaster is a salesman, and a gentleman.

And while you are thinking that over contrast it with the grocer who always sells you potatoes in a sack so flimsy that it tears down the side just as you get it home, and drops the spuds all over the kitchen floor.

Somewhere some grocer is earning a place in the hall of fame for using just a little common sense—and incidentally, I'll bet he sells a lot of potatoes.

May it be my happy chance to meet him!

And while you are figuring that one out you might as well wonder with me why some man in the canning business doesn't design a "ketchup" bottle that has a chance of standing on its own bottom; or one that doesn't pour with a reluctant shudder—"Buzzom" companion stuff.

Now let's go back to your business—I'll bet there are 20 little things that you could improve on—either in the way of service or selling or design—if you just got your mind out of hock long enough to see them.

Back up a bit—and get a perspective.



Main Panel of air conditioning system in a large restaurant showing 24 Allen-Bradley control units.

Prevent Shutdowns and Servicing Expense with Allen-Bradley Starters



Shutdowns of air conditioning and heating equipment . . . due to starter troubles . . . can be prevented.

Just specify Allen-Bradley solenoid starters. They have double break, cadmium silver contacts that won't stick, burn, or weld. There is a warning in every Allen-Bradley starter that says—"Never clean, dress, or file the contacts." This means that you install an Allen-Bradley starter . . . and forget it. There is no contact maintenance.

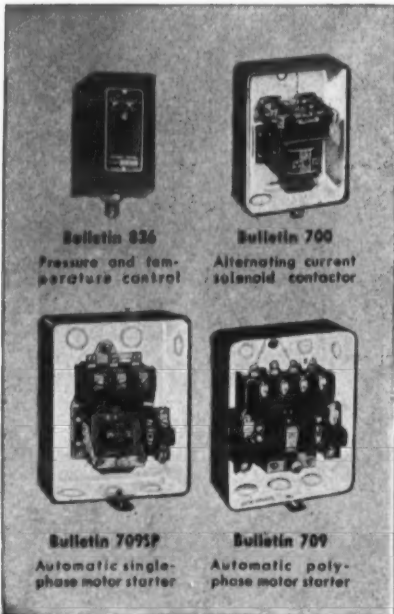
Allen-Bradley solenoid starters have no bearings, pins, or flexible

jumpers. There is nothing to get out of order.

And Allen-Bradley starters are easy to install, too. There is generous wiring space; the white interior is helpful during installation in dark corners; the accessible terminals make connections easy. There are lots of knockouts.

Use Allen-Bradley trouble-free starters on your next job. They will please your customer, too.

Allen-Bradley Co., 1313 S. First St. Milwaukee, Wis.



ALLEN-BRADLEY
SOLENOID MOTOR CONTROL

There's a
Knack to
Making Good
DOOR
GASKETS
and
Miller
HAS IT
!

• The "iceless" was in its infancy when Miller first tackled the problem of rubber door gaskets. We've been at it ever since — pioneering new designs and compounds to meet the ever-changing needs of the refrigerator manufacturer. Since each of our replacement door gaskets is an exact duplicate of the original, both in design and quality, doesn't it stand to reason that it is to your advantage as well as the customer's to specify Miller?

You'll find the Miller line complete, too. Its 34 different gasket types enable you to service 80% of all refrigerators regardless of make. Sample card, price list and name of nearest jobber can be obtained by writing—

MILLER RUBBER COMPANY, INC.,
AKRON, OHIO
"Engineers in Rubber"

Victor & Jack Moss Engineers Design Lockheed Planes In Are Associated With Stangard-Dickerson Comfort, Cooled By Unusual Installation

NEWARK, N. J.—Association of Victor J. Moss and Jack J. Moss of J. Moss Equipment Co. with Stangard-Dickerson Corp., manufacturer of ice cream cabinets and replacements, has been announced by Andrew W. McCabe, president of the latter firm.

The Moss brothers have been associated with the ice cream cabinet, dairy supply, and frosted food industries for the past 15 years, having recently marketed the Evacold ice cream cabinet.

Plant facilities now available to this combination embody over 80,000 sq. ft. of work area, set up to the advantage of mass production.

The company already has several valuable contracts for cabinet manufacture, Mr. McCabe claims. The Stangard-Dickerson Corp. also manufactures a contract line of frosted food cabinets and display cases.

The corporation is now represented by the following individuals: Andrew W. McCabe, Richard P. McCabe, John F. McCabe, Jack J. Moss, Victor J. Moss, Rueben Raskin, and Walter Raskin.

Buffalo Dealers Hit By Passport Restrictions

BUFFALO—The new passport requirements of the United States and Canada's exchange restrictions and the Dominion's restrictions on money that can be taken out of the country for merchandise purchases are cutting deeply into local trade, according to Buffalo appliance dealers who estimate that sales to Canadian buyers have declined at least 50% since early July when these restrictions went into effect.

Appliance dealers here previously carried on extensive business with Canadian shoppers who purchased appliances under the exemption clause which permitted them to take back into Canada \$100 worth of merchandise duty free.

Ermco Sells Products of Sheip & Vandergrift

PHILADELPHIA—Electric Refrigeration Motor Co. has been appointed distributor of Sheip & Vandergrift ice cream cabinet replacement parts, including panels, tops, lids, etc., reports George C. Tatem, president of the Ermco organization.

Bendix Reports on Earnings & Plans

SOUTH BEND, Ind.—Increases in both sales and net profits were revealed by the semi-annual report of Bendix Home Appliances, Inc., for the six months ended June 30.

Unit sales of Bendix home laundries for the first six months of this year totaled 38,594 units. Dollar value of home laundry sales, including service parts for the period, was \$2,540,435, or more than for the entire calendar year of 1939.

After charges, including depreciation, amortization, and provision for federal income taxes and including non-operating royalty income of \$125,000, net profit for the first half of 1940 amounted to \$312,758.

Balance sheet of June 30, 1940 reflects \$324,300 cash on hand and total current assets of \$1,100,605. Current liabilities totaled \$483,647 including \$62,552 due debenture redemption fund on May 1, 1941, indicating a current ratio of 2.25 to 1, and showing net working capital of \$616,958.

Don O. Scott, president, reported that the company recently effected a licensing arrangement with one of the largest industrial companies in the United States whereby Bendix received a cash payment of \$125,000 and a continuing royalty for the non-exclusive right to manufacture and sell washing machines coming within the scope of the Bendix patents. Bendix in addition received a royalty-free non-exclusive license under the patents of the licensee.

LOS ANGELES—Engineers designing airplanes for the Lockheed Aircraft Corp. in Burbank, now work under ideal atmospheric conditions following the installation of a 137-ton air conditioning system. Because of space limitations and the inability of the roof to carry concentrated loads, Gay Engineering Corp. installed four separate unit systems to cool the large building.

The system also serves four executive offices and supplements a 30-ton unit installed in the tabulating department about two years ago by another firm.

Equipment design was based on an average of about 500 occupants and fan capacity was provided to handle some 27,750 sq. ft. of conditioned area. An inside temperature of 78° F. is maintained when the outside temperature is 95° F. with an average 48% relative humidity.

Conditioned air is introduced to

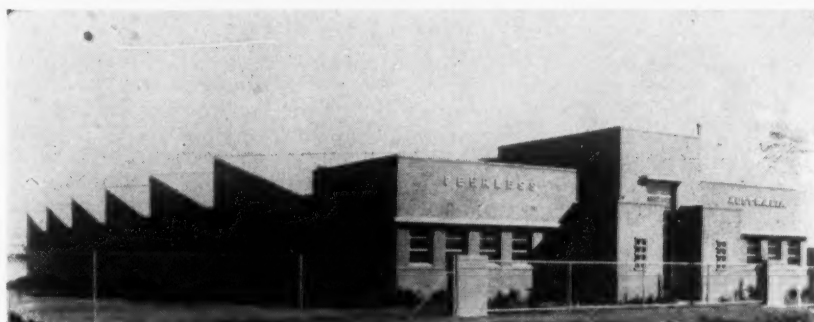
the building from four separate duct systems on the roof through directional flow grilles. It was necessary to use this type of outlet as grilles were located at the same height as suspended fluorescent lighting. Directing air on the lighting would cause swaying of fixtures and reduce the light intensity from the tubes which do the lighting.

Each unit in the four-zone system is thermostatically controlled for heating and cooling.

About 52 tons of the cooling load is handled by mechanical refrigeration, the balance being supplied by pre-cooling coils served with 65° F. water drawn from a 16-inch well. After the water passes through these coils, where it has a 7° F. temperature rise, it is used to condense the refrigerant, and finally is returned to a disposal well.

Gas fired duct heaters are used for winter heating.

Peerless Opens Modern Plant 'Down Under'



Australian Plant Is Third Outside U. S.

CHICAGO—Products of Peerless of America, Inc. are now being manufactured in Australia in an ultra-modern type of plant.

This is the third manufacturing unit of Peerless of America, Inc. to be established outside of the United States, the other two being in Brazil and Canada.

Sees Attic Fan Market For Tobacco Barns

FLORENCE, S. C.—Walker Electric Co., Westinghouse dealer here, has added a line of attic ventilating fans. Roy Walker, head of the firm, believes that there is quite a market for this type of equipment for use in tobacco barns to insure a more uniform color of tobacco in the process of curing.



PAR - BUILT LIKE A Thoroughbred!

HERE is a condensing unit that has been engineered as a complete unit—not just a group of sub-assemblies bolted together. This thoroughbred engineering is evident even down to the most minute detail... a complete unit, trim of line and ruggedly simple in design.

Every bolt and nut... every streamlined fitting... the thoughtful design of base and belt guard were chosen with but one purpose in mind—to build a complete condensing unit with the sinews of a thoroughbred... minus the flabbiness of excess metal.

★ ★ A PAR UNIT FOR EVERY JOB ★ ★ SEE YOUR JOBBER

ALABAMA
BIRMINGHAM—REFRIGERATION SUPPLIES DISTRIBUTOR
MONTGOMERY—TEAGUE HARDWARE CO.

ARIZONA
PHOENIX—J. CARL WHITE CO.

CALIFORNIA
FRESNO—ARBELL REFRIGERATION SUPPLIES
LONG BEACH—REFRIGERATION SUPPLIES DISTRIBUTORS

LOS ANGELES—FRANK GILLET COMPANY
LOS ANGELES—REFRIGERATION SUPPLIES DISTRIBUTORS

OAKLAND—CALIFORNIA REFRIGERATOR CO.
SAN DIEGO—REFRIGERATION SUPPLIES DISTRIBUTORS

SAN FRANCISCO—CALIFORNIA REFRIGERATOR COMPANY
COLORADO

DENVER—MC COMBS REFRIGERATION SUPPLY CO.
DISTRICT OF COLUMBIA

WASHINGTON—MELCHIOR, ARMSTRONG, DESSAU COMPANY
FLORIDA

JACKSONVILLE—BOWEN REFRIGERATION SUPPLIES, INC.
TAMPA—BOWEN REFRIGERATION SUPPLIES, INC.

WEST PALM BEACH—MOTOR PARTS & EQUIPMENT COMPANY, INC.
GEORGIA

ATLANTA—BOWEN REFRIGERATION SUPPLIES, INC.
MACON—LOWE ELECTRIC CO.

ILLINOIS
CHICAGO—H. W. BLYTHE COMPANY
CHICAGO—AUTOMATIC HEATING & COOLING SUPPLY COMPANY

INDIANA
INDIANAPOLIS—F. H. LANGSENKAMP CO.
SOUTH BEND—F. H. LANGSENKAMP CO.

IOWA
CEDAR RAPIDS—DENNIS REFRIGERATION SUPPLY
DAVENPORT—PUBLIC ELECTRIC COMPANY

DES MOINES—DENNIS REFRIGERATION SUPPLY
SIOUX CITY—DENNIS REFRIGERATION SUPPLY
WATERLOO—WINTERBOTTOM SUPPLY CO.

KANSAS
WICHITA—HOWARD SUPPLY COMPANY
KENTUCKY

LEXINGTON—UNITED SERVICE CO., INC.
LOUISVILLE—S. W. H. SUPPLY CO., INC.

MARYLAND
BALTIMORE—MELCHIOR, ARMSTRONG, DESSAU COMPANY

MASSACHUSETTS
BOSTON—MELCHIOR, ARMSTRONG, DESSAU CO.
SPRINGFIELD—MELCHIOR, ARMSTRONG, DESSAU COMPANY

MICHIGAN
FLINT—LIBBY DISTRIBUTING COMPANY
GRAND RAPIDS—B. F. HARRIS & SON

MINNESOTA
MINNEAPOLIS—REFRIGERATION & INDUSTRIAL SUPPLY CO., INC.

MISSOURI
KANSAS CITY—FORSUM PUMP & MACHINERY COMPANY
ST. LOUIS—BRASS & COPPER SALES COMPANY

NEBRASKA
LINCOLN—WICKHAM SUPPLY COMPANY
OMAHA—INTERSTATE MACHINERY & SUPPLY CO.

NEW JERSEY
NEWARK—MELCHIOR, ARMSTRONG, DESSAU CO.
RIDGEFIELD—MELCHIOR, ARMSTRONG, DESSAU COMPANY

NEW YORK
ALBANY—MELCHIOR, ARMSTRONG, DESSAU COMPANY
BROOKLYN—MELCHIOR, ARMSTRONG, DESSAU COMPANY

BRONX—MELCHIOR, ARMSTRONG, DESSAU CO.
BUFFALO—MELCHIOR, ARMSTRONG, DESSAU CO.
ROCHESTER—MELCHIOR, ARMSTRONG, DESSAU COMPANY

NORTH CAROLINA
CHARLOTTE—HENRY V. DICK & COMPANY
GREENSBORO—HASCO, INC.

RALEIGH—HENRY V. DICK & CO.
OHIO

AKRON—PERCY G. HANSEN
CINCINNATI—THE MERKEL BROTHERS CO.
CLEVELAND—DEBES & COMPANY

COLUMBUS—REFRIGERATION ELECTRIC SUPPLY COMPANY
DAYTON—THE W. H. KIEFABER COMPANY

HAMILTON—W. H. KIEFABER CO.
TOLEDO—HEAT & POWER ENGINEERING CO.

OKLAHOMA
OKLAHOMA CITY—MIDDEKE SUPPLY COMPANY
TULSA—MACHINE TOOL & SUPPLY CO.

OREGON
PORTLAND—REFRIGERATION SUPPLY, INC.
PENNSYLVANIA

HARRISBURG—MELCHIOR, ARMSTRONG, DESSAU COMPANY
PHILADELPHIA—MELCHIOR, ARMSTRONG, DESSAU COMPANY

PITTSBURGH—MELCHIOR, ARMSTRONG, DESSAU COMPANY
EXPORT DEPARTMENT

MELCHIOR, ARMSTRONG, DESSAU COMPANY, RIDGEFIELD, N. J.

SOUTH CAROLINA
COLUMBIA—HENRY V. DICK & CO.

TENNESSEE
CHATTANOOGA—PEGLAR MACHINERY CO.
KNOXVILLE—HENRY V. DICK & CO.

MEMPHIS—UNITED REFRIGERATOR SUPPLY CO.
NASHVILLE—ELECTRA DISTRIBUTING COMPANY

TEXAS
CORPUS CHRISTI—HOLEWORTH EQUIPMENT CO.
DALLAS—THE ELECTROMOTIVE CORPORATION

FORT WORTH—MC KINLEY REFRIGERATION SUPPLY COMPANY, INC.
HOUSTON—D. C. LINGO COMPANY

LUBBOCK—R. R. PARTS AND SUPPLIES COMPANY
WICHITA FALLS—UNITED ELECTRIC SERVICE CO.

VIRGINIA
NORFOLK—NOLAN COMPANY, INC.
RICHMOND—A. R. TILLER, INC.

WASHINGTON
SEATTLE—REFRIGERATION SUPPLY, INC.
SPOKANE—REFRIGERATION PARTS SUPPLY CO.

WEST VIRGINIA
CHARLESTON—AIR CONDITIONING & REFRIGERATION SUPPLIES, INC.

WISCONSIN
APPLETON—REFRIGERATION SPECIALTY CO.
MILWAUKEE—REFRIGERATION SPECIALTY CO.

CANADA
MONTREAL, QUEBEC—RAILWAY & ENGINEERING SPECIALTIES, LTD.

TORONTO, ONTARIO—RAILWAY & ENGINEERING SPECIALTIES, LTD.

WINNIPEG, MANITOBA—RAILWAY & ENGINEERING SPECIALTIES, LTD.

VANCOUVER, BRITISH COLUMBIA—FLECK BROS., LTD.



MODERN EQUIPMENT CORPORATION - DEFIANCE, OHIO

World Household Refrigerator Sales For July

The following 14 companies reported sales to the Refrigeration Division of the National Electrical Manufacturers Association (Nema) on household electric refrigerators for July, 1940:

Apex Electrical Mfg. Co., Crosley Corp., Edison General Electric Appliance Co., Inc., Frigidaire Div. General Motors Corp., Gale Products Div. Outboard Marine & Mfg. Co., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div.

Nash-Kelvinator Corp., Leonard Div. Nash-Kelvinator Corp., Norge Div. Borg-Warner Corp., Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co.

The sales of the reporting companies include units manufactured for the following concerns: Montgomery Ward & Co., Potter Refrigeration Corp., and Sears, Roebuck & Co.

SALES FOR JULY, 1940

	Domestic	Canadian	Other Foreign	Total
Lacquer (Ext.) Cabinets Complete				
1. Less than 4 cu. ft.	1,852	132	331	2,315
2. 4 to 4.99 cu. ft.	13,558	851	1,074	15,483
3. 5 to 5.99 cu. ft.	9,113	1,802	552	11,467
4. 6 to 6.99 cu. ft.	178,069	2,139	2,124	182,332
5. 7 to 7.99 cu. ft.	1,341	10	17	1,368
6. 8 to 8.99 cu. ft.	12,503	85	313	12,901
7. 9 to 12.99 cu. ft.	664	...	...	664
8. 13 cu. ft. and up	9	...	1	10
9. Total Lacquer	217,109	5,019	4,412	226,540
Porcelain (Ext.) Cabinets Complete				
10. Less than 5 cu. ft.	...	...	25	25
11. 5 to 5.99 cu. ft.	269	13	656	938
12. 6 to 6.99 cu. ft.	11,381	17	168	11,566
13. 7 to 7.99 cu. ft.	...	...	...	...
14. 8 to 8.99 cu. ft.	1,828	4	440	2,272
15. 9 to 12.99 cu. ft.	124	1	8	133
16. 13 cu. ft. and up	370	...	26	396
17. Total Porcelain	13,972	35	1,323	15,330
18. Total—Lines 9 and 17	231,081	5,054	5,735	241,870
19. Separate Systems, 1/4 hp. or less	74	6	1,163	1,243
20. Separate Household Evaporators	...	...	...	...
21. Total—Lines 18, 19, and 20	231,155	5,060	6,898	243,113
22. Condensing Units, 1/4 hp. or less	...	...	...	...
23. Cabinets—No Systems	6	...	...	6
Value Index*	157.0	279.0	54.7	151.0

*Based on weighted sales for 1934, 1935, and 1936.

July Household Sales Set All-Time Mark

(Concluded from Page 1, Column 5) more, and January, the low month so far, had shipments of 239,000 units.

World shipments by 14 companies reporting to National Electrical Manufacturers Association totaled 243,113 units during July, to bring the seven-month total for the Nema group to 2,071,160 units. Shipments to distributors and dealers in the United States amounted to 231,155 units during July, for a total of 1,968,703 to these outlets during the first seven months of the year.

Six-foot units continued to dominate the field in both the lacquer and porcelain classifications. July Nema tabulations show 182,332 6-foot units in the lacquer exterior class, and 11,566 units in the all-porcelain class. Seven months' figures show 1,544,352 6-foot models shipped in the lacquer models, and 68,781 all-porcelain units.

Value index of July sales was 151 for world shipments, and 157 for those in the U. S. only. For the year's first seven months, the index stood at 149 for world shipments and 152 for U. S. shipments. The index is based on weighted sales for 1934, 1935, and 1936.

New Philco Dealer

FLORENCE, S. C.—Rainwater Furniture Co., long-time dealer for Philco radios, has taken on the Philco line of refrigerators. I. S. Rainwater is manager and owner.

THE COLD CANVASS

By B. T. Umore

Terhune Makes Dog's Life Worth Living

E. A. "Terry" Terhune, Servel's silver-tongued sales manager, appeared this summer in the new role of "Attorney for the Defense" in a dramatic trial at Swampscott, Mass. The defendant was "Terry's" Belgian Shepherd dog, doomed to die for sampling the hide of a postman.

The trial was packed with color, drama, pathos, and surprise. It had all the trimmings of a big-time murder trial. Small wonder, because when "Terry" goes to bat for something—be it man, beast, or refrigerator—he makes a smash hit.

Before the board of selectmen of Swampscott, "Terry" staged the fight for the life of his condemned dog—"Mars." The dog was accused of being vicious, with a particular dislike for mail couriers. The heat was on. The chips were down.

Showmanship Plus

Testimonials

First, "Terry" called as "character witnesses" some neighborhood kids. Pals of the accused. They testified that the dog was "docile as a lamb and playful as a baby." Next a neighbor showed movies of the dog romping with his 4-year-old grandson. Another direct hit for the defense.

And then "Terry" himself took the floor. And how. For nearly two hours he held the court and spectators in the magic spell of his word wizardry. (Those of us who have marvelled at the dynamic "Terry" in action at sales meetings or conventions can testify as to his ability to toss effective words and gestures around while the clock ticks on, heeded by no one.)

What a show it must have been. "Terry" argued. He pleaded. Then he appealed. He even went into the politics of the thing. An account of the "trial" in the Lynn, Mass. Daily Evening Item quotes "Terry" in action as follows:

Blames Hitler, Raps New Deal

"I refuse to have a dog shot in cold blood," Mr. Terhune shouted. "But the question before us is more than that of a dog being shot. It's whether we are going totalitarian and whether we are to be run by a bureaucratic brass hat." (Cries of "attaboy" and "You tell 'em" from the audience.)

And then "Terry" called his surprise witness. Maybe he whistled. It was "Mars" who appeared, tail wagging, in his own defense. The dog sat on his haunches and silently begged for his life. The dog's silent, friendly performance, combined with "Terry's" fiery, eloquent appeal, cinched the case. The verdict—not guilty.

Mars Has Good Taste In Bureaucrats

The dramatic fight for the dog's life and "Terry's" masterful defense caught the public fancy. The trial made the front pages, pictures and everything.

One editor even wrote an editorial about it. The editor suggested that perhaps the dog did not like the present administration at Washington and was making his feeling "felt" through the nearest representative of the administration—the postman.

Cohn Bros. Store Opens Appliance Department

PORTLAND, Ore.—Cohn Bros. Furniture Co. has completed its modernization program by opening a new electrical appliance department. Under the management of David Cohn, this department features Gibson refrigerators and ranges. As an introductory offer the company is offering for a limited period to install ranges without any wiring charge.

Rema To Discuss 1941 Show At Fall Meeting

(Concluded from Page 1, Column 3) the final arrangements for the third annual All-Industry Refrigeration & Air Conditioning Exhibition, to be held Jan. 13 to 16, 1941, in the Stevens hotel, Chicago.

Rema members expect the 1941 show to shatter all previous records, both for number of exhibitors and attendance. Exhibition Manager R. M. McClure reports that already 145 booths have been reserved for the show, only 15 less than the total number available for the 1940 "sell-out" last January.

From an attendance standpoint, the 1941 show is expected to exceed by several thousand the number of visitors who turned out for the event last January. All of the cooperating technical societies and national trade associations who held their 1940 conventions and meetings in Chicago during the All-Industry Exhibition are planning sessions again during the 1941 "show week," to give their members another opportunity to preview the new products lineup for the year.

Most of these meetings also will be held in the Stevens hotel.

Fiske & Field Placed On Defense Committee

(Concluded from Page 1, Column 2) mittee in the field of engineering for assistance in the compilation of the roster. Their appointments were made by Ross G. Harrison, chairman of the National Research Council, whose field is that of science and technology in the cooperative undertaking.

Other members of the evaluation committee are Dr. H. A. Poillon, Dr. Maurice Holland, Dr. F. G. Cottrell, Dr. F. M. Feiker, and Dr. John S. Nicholas, who will be executive secretary of the group.

Brennan Changes Jobs

CLEVELAND—Warren E. Brennan, formerly Detroit representative for Universal Cooler, has been appointed manager of the Michigan and Detroit territory of Cleveland Cooperative Stove Co.

From 1/4 to 25 TONS of refrigeration

Brunner Refrigerating and Air Conditioning equipment comprises air and water cooled condensing units for practically all types of commercial applications up to and including 25 tons of refrigeration...

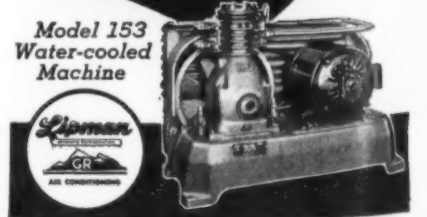
Catalog promptly on request. Brunner Manufacturing Co., Utica, N. Y., U. S. A.

BRUNNER

FOR YEARS THE SYMBOL OF QUALITY

The Machine For Your Next Job...
If it's a refrigeration job...no matter how big or how small...we can supply Lipman equipment to fit the specifications. Let us work with you.

GENERAL REFRIGERATION DIVISION
Yates-American Machine Co.
Dept. AC-3, Beloit, Wis.



You Get

All These Advantages in the Full Range of

ALCO

Evaporator Pressure Regulators

The exacting and rapid performance of Alco Evaporator Pressure Regulators insures successful operation on either single or multiple systems. They are designed to accurately maintain evaporator pressures regardless of sudden load changes or fluctuations in suction pressure.

All Alco Evaporator Pressure Regulators are designed for use with any refrigerant. Precision workmanship and use of the highest grade materials assure long life and uninterrupted service.

Alco's traditional accuracy and efficiency—made famous through Alco's complete line of Thermo Valves—is now available in a full range of Evaporator Pressure Regulators.

For further details and complete information—see your Alco jobber, or write direct today.

ALCO VALVE COMPANY
2620 Big Bend Blvd. St. Louis, Mo.

Only Alco Evaporator Pressure Regulators offer you ALL of these advantages:

- Exceptional sensitivity of control.
- Simplicity of construction—lighter weight—more compact.
- All sliding parts have been eliminated from the friction-free Alco floating pilot—assuring maintenance of selected pressure.
- Two built-in strainers.
- Highest degree of serviceability—replaceable cage construction—all internal parts can be removed without taking main body or flange out of the line.

ALCO Engineered Refrigerant Controls
FOR HIGHEST EVAPORATOR EFFICIENCY

'Women Too Smart as Buyers,' Law Is Proposed To Curb Them

Vineberg Believes a 'Robinson-Patman Act For the Customer' Is Only Insurance of a One-Price Policy

By Samuel S. Vineberg, Manager, Electric League of the Niagara Frontier*

As a married man I consider it a privilege to be able to talk without interruption for 15 or 20 minutes. It seems that the average business man has been talked to and about so much during the last few years that I can hardly conceive how you men in the audience can "stand" to sit there even without listening while someone up here talks to you about business instead of minding their own business.

Everybody seems to have a cure-all for business. Up to a few years ago I found it hard to justify the picture of the average business man as being short, fat, and bald-headed, seated in the front row of a burlesque show. Now I realize that business men are so fed up with panaceas that they want the "bare" facts.

When the chairman of your program committee invited me to address you he said select your own subject, so I have decided to give you my answer to the question "How Smart Is Your Customer?"

WIVES AFTER FINAL 15%

Women of this great nation of ours spend 85% of the money we men hope we make. That is, that our wives, mothers, and sweethearts are the principal purchasing agents for the homes of this great nation of ours.

Frankly, I don't know whether it's safe for us men to complain about it. It seems to me that the women have overlooked that 15% which we men spend and if we get too excited about it they might even take that away from us, so perhaps we had better sit tight and let things rest as they are.

I am not so sure that the arrangement as it now stands with women being responsible for 85% of the purchases for the modern American home is so bad after all. Women have done an excellent job as purchasing agents for the home, they certainly are getting an awful lot for their money. True, we men have made it possible for them to devote more time to purchasing than our grandmothers had.

CRACK 'PURCHASING AGENTS'

The modern homemaker is smart; and one thing more that makes her an ideal purchasing agent, she has a swell memory.

If you don't think your wife has a good memory try this when you get home tonight. Ask her what suit you wore on your honeymoon, the color of your tie, or the first show you took her to after you were married.

Or ask her how old your living room curtains are, where she bought them, and how much she paid for them.

Or, if you dare, ask her when you last brought home a box of candy, or a bouquet of flowers.

Women are the big buyers of the nation because we men agree that she gets more for the money we make than we do. We men take a lot of time educating our wives to men's standards of business, to smarten them up in their transactions with other men until each man thinks his own wife is smarter than all other wives.

The paradox of this situation is that in business we men ourselves deal with these same women, the smart wives of other men who just like our own wives are out to get as much as they can for their money. And unfortunately we have overdone the purchasing technique in teaching our wives. We have made them too smart.

A man gets a lot of fun out of being a sport. He will go out of an evening and will nonchalantly gamble and drink away a week's salary while his wife plays bridge for 10 cents a corner and gets a thrill out of it.

Women are notoriously poor tipsters. We men tip the pretty blond waitress who brought us a 40-cent lunch at least 10 cents which is 25%

*Excerpts from a talk given before the Kensington Kiwanis Club.

of the charge. Did you ever hear of a woman handing a plumber 75 cents because he charged her \$3.00 to fix the kitchen sink.

Women have made liars, chisellers, and monkeys out of us men in business and if we go on making them smarter and encouraging them in their depredations as the purchasing agents of our homes, they will become the "Frankenstein" that will slowly put us men and our businesses into bankruptcy.

One wonders whether we Occidentals with our western civilization are actually as smart as we think we are. Perhaps the Orientals who keep their women at home away from the tides of commerce are not so dumb after all.

BUT THEY CUT EARNINGS

We men have made our wives the notorious bargain hunters they now are. We are to blame. There are too many schemes nowadays by which wives of some men cut the earnings of the husbands of other wives. If we follow this practice to its logical conclusion it can result in nothing else but virtually reducing the wages of all men in business and increasing the real wages of labor.

John Wanamaker must turn over in his grave at the thought that the world has not yet learned the benefits of his one price policy established in his stores so many years ago.

I am a staunch believer in this policy because I believe it is the only fair one for customer and merchant alike. First, the merchant sets a price on the merchandise which gives him a fair margin of profit over and above the cost of the merchandise plus the cost of the services which he renders to the customer and on the part of the customer he knows when he buys an article from the one price merchant that no neighbor of his, friend, or relative can walk into that store and buy the article at a lower price. If the prices are too high in the opinion of the customer, she can still go elsewhere.

Trade unions have equalized wages in terms of money but until every store establishes a one price policy we will not have attained the ideals set by the trade unionism or any other fair wage system.

In the final analyses there are only two elementary pricing systems, our American system which exchanges dollars for goods and the second system of the early days, the barter system. Trouble arises and confusion results when we mix these two systems.

IT'S A 'BARTER' SYSTEM

When a customer asks for a reduced price for any reason whatsoever, she is "bartering" something else for the difference in price between that which she is willing to pay and that which the item is marked.

In a complex economy such as we live in the barter system is impractical, and most certainly any combination of the barter and monetary exchange must be even more complex.

I am wondering how many men in this audience are familiar with the Robinson-Patman Act. It was enacted only after long and strenuous debate. Many hearings were held, many fought for and against it.

In substance the Robinson-Patman Act forbids price discrimination in favor of any buyer. Price discrimination is considered present when a buyer purchases a bill of goods at a lower price than another buyer where such lower price is not justified by a saving in production costs or selling costs.

This law has been on the statutes long enough to have been proven practical. Price lists of manufacturers have been brought out into the open. If quantity discounts are available, they are available to all buyers alike and those quantity discounts must be justified on the basis of true economies in handling the individual order.

I strongly believe that a Robinson-

Patman Act applied to consumer purchases would go a long way to correct many of the ills of retail merchandising. Let me summarize briefly, the points which I would stress in my so-called "Robinson-Patman Act to Govern Consumer Purchases." Here are eight governing features.

WOULD BUY AT ONE PRICE

1. All customers of any one store would buy at the same price. There would be no preferential treatment allowed.

2. No product could be bought by consumers for their own use except at a retail store marked price, regardless of where the purchase is made.

3. Groups of consumers would not be able to buy for their own use except from regular retail stores unless they maintain a warehouse, in which case the warehouse would become a retail store where everybody could come and shop whether they are members of that group of consumers or not and where everybody would pay the same price.

4. Merchandise must be price marked. However, where items are too small and too numerous the price schedule listing the items may be tacked up on the wall.

5. Each store will set its own selling price. This plan calls for no collusion between dealers in the establishment of selling prices, and for the successful working of the plan, uniform prices between establishments is of little importance.

6. Price reductions can be made but must be available to all.

7. Price increases cannot be made for seven days, after previous change.

8. Advertising of reductions can

only be made where there is a known supply available equivalent to a normal one week's business for that season of the year.

I realize the above eight points may require some modification or expansion but I have presented them to you as a starting point.

Let me sum up the advantages to be obtained by such an enactment.

1. A Robinson-Patman Act for Consumer Purchases will protect the public from fictitious list prices because if a merchant cannot reduce his price for the customer about to walk out he will have the merchandise priced at the lowest price consistent with good business.

2. Because of the above it will protect the consumer accustomed to paying the asked price from paying a price higher than somebody else who quibbles about prices.

HOW MERCHANT IS HELPED

3. It will save the merchant's time, because he will devote his energies to selling the product on its merits and that period of time given over to chiseling will be eliminated.

4. It will protect the square dealing merchants from the shady merchant. Many customers have been taken in by a merchant who offers unusual discounts, whose main stock in trade is standard brand merchandise on which he has raised the list price and then is prepared to offer bargains to the shopper.

The square dealing merchant already marks his merchandise at a fair price and cannot compete with the operator who establishes fictitious prices and sells his merchandise for as much as he can get up to even the raised price, and can therefore undersell a "reasonable price" when

competition for the sale compels it.

5. The poor, untutored, low-salaried buyer who believes what he reads to be gospel-truth will be protected. In many cases such buyers are paying higher prices for their household necessities than smarter buyers with incomes several times higher but who know the ropes and are able to bargain for reduced prices.

6. It will put an end to upstairs brokerage type dealer.

DEALERS PROTECTED

There may be some of you who consider the conclusions to be somewhat optimistic but I believe that those of you who are in the retail business know that if all merchandise were price marked and sold at the prices indicated that manufacturers and distributors would protect their dealers from the cut price operators and that it would be within their power and to their advantage to refuse to sell such outlets because the independent merchant would be established in business again making a reasonable margin of profit, unloading sufficient merchandise for his distributor and manufacturer that there would be no need for the back-door, upstairs outlet.

In conclusion, let me again remind you that our wives are smart women but unlike we men they are concerned mainly with the welfare of their own homes. It is we men who have built the economy that we enjoy and it is up to us who control the business, civic, state, and national affairs, paradoxically enough, to protect this economy from the petticoat philosophy whose slogan seems to follow the old proverb, "Take care of the pennies and the dollars will take care of you."



She wouldn't say
"YES,"

she wouldn't say
"NO,"



she'd only say
"MAYBE"...

SHE showed little interest when she heard about the latest improvements... better insulation... larger storage space. To her it was just a new white refrigerator, like all the rest. But she "perked up" immediately when she saw the DULUX seal—and it was a cinch to get her name on the dotted line.

The same thing can work for you. If a wavering prospect has you groggy, just point out the DULUX seal. Tell her what this seal stands for—a beautiful, easy-to-clean finish that keeps its brilliant beauty. A finish that is resistant to chipping, cracking, grease, food stains and yellowing.

You can do this with confidence, because DULUX is the finish with every quality women want. And many's the salesman who makes it a point to mention the advantages of DULUX early and often in every sales talk—just because they've found DULUX is one of the best sales-clinchers that ever made a hesitating prospect reach for a fountain pen and say, "Where do I sign?" E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington, Delaware.

...UNTIL SHE SAW THIS
SEAL ON THE DOOR



DULUX



THE MODERN FINISH FOR MODERN LIVING...It saves work

OH-H-H! WHY DIDN'T
YOU SAY IT WAS
FINISHED WITH DULUX?



Those 'Pretty Colored Movies' Prove Enticing To Prospects

They Demonstrate To Him How Nice His
Competitor's New Installation Really Is

DALLAS, Tex.—Color photography has a following of myriad zealous amateurs all over the country, but probably to few of them has it come to have the same significance in terms of return as to G. W. Knight, Jr., chief engineer and owner with L. E. Adler of the Air-Rite Corp. here.

Color photography both in the field of still and movie shots has become an important, in fact almost essential, factor in the sales technique employed by this organization, which is distributor for the Kelvinator and Chrysler Airtemp lines in the commercial fields in Dallas.

Color pictures have been taken in literally thousands by the company for the purpose of showing just what

can be done with use of modern refrigerator equipment, both in the average foods or meats store, or in the modern locker plant. Mr. Knight and his associate have complete files of color pictures—miniature color transparencies made by Mr. Adler, and eight MM movies made by Mr. Knight—which more and more are becoming a routine part of their sales campaigns.

CREATE INTEREST QUICKLY

The procedure now has been developed and refined down to a use of the films primarily for the purpose of creating first of all, with least resistance and in shortest time, an actual buyer interest on the part of the prospect. In this both the movie films made by Mr. Knight, or the stills made by Mr. Adler, or both, play leading parts.

The employment of color film in this manner had the germ of its origin in the lively interest of Mr. Adler in "almost everything which can make a fellow tinker around," Mr. Knight declares. Mr. Adler had been "tinkering" with photography; and when color film began to attract the amateur attention, he turned to it forthwith. He made pictures of flower beds, of friends, of this room and that in his home. Some of his shots were tops, others not so good. Mr. Knight, too, had been "fooling" with cameras, though not in the same degree as his associate. The latter spent handsome sums for his equipment, where Mr. Knight contented himself with modest investments.

TURN TO COLOR

Between them they began to think in terms of what might be done by them to put this new medium in photography to profitable use. There had been movie and other pictures, color and black and white, furnished by manufacturers for demonstration

'One Picture Is Worth' - - (Perhaps a Number of Sales)



(Above) G. W. Knight of the Air-Rite Corp., Dallas dealership, studies one of the color transparency photographs made by his associate L. D. Adler. (Right) Mr. Adler often finds photography a common ground in talking with prospects.





BLOWER WHEELS

"HAVE CLARAGE MAKE THEM!"



COMPLETE ASSEMBLIES

Every year we ship to builders of air conditioning units thousands upon thousands of Clarage Blower Wheels and Assemblies.

This smaller equipment is designed with the same skill characteristic of the larger Clarage apparatus—just as carefully fabricated and tested.

And we have sizes to meet ALL REQUIREMENTS—with slow speed operation insuring SILENT PERFORMANCE.

May we have your next inquiry?

CLARAGE FAN COMPANY
KALAMAZOO, MICHIGAN
Sales Offices in All Principal Cities



purposes. These ordinarily seemed to lack what was needed to light the spark of genuine personal interest on the part of the prospect viewing them. They served, it seemed, more to confuse him than to clarify.

Messrs. Knight and Adler determined to try some color work on their own, and see what would happen. The outcome of the experiment has been this:

500 REELS ON FILE

Mr. Knight, as the result of his personal activity, now has a file of some approximately 500 reels of home movies in color, of the eight MM variety, made with a low cost Eastman Kodak company movie machine. These show commercial installations of every variety which have been installed in establishments all over the territory covered by the company. They include the familiar retail establishments and the frozen foods locker plant.

The procedure now followed by the company in seeking to make sales of new and modern refrigerator equipment of all variety is to approach the prospect, not merely with a proposal in words, backed perhaps with figures, and possibly with routine photographs, but with a 10-minute "show" in which the prospect is given opportunity to see before him just what another man in similar business—he probably knows the man personally—has been able to do.

HOW IT WORKS

He sees John Jones, perhaps, a man he has known for years, and whose problems are so nearly identical with his own as to virtually be one, there in front of him on the screen, moving about in his modernized store. He knows John Jones intimately, perhaps, or of him sufficiently to know that his capacity to do is quite comparable with that of John.

The color movie, supported with the "still" transparencies used to supplement it, shows him just how fresh and attractive everything in the Jones store has been made by use of new refrigerator equipment.

"I would not want to hazard any guess as to how many sales we actually could trace back to the films, either the miniature transparencies or the movies," Mr. Knight declares.

HE SEES HIS FRIENDS

"However, when we approach a man now, we go to him with a specific and illustrated instance of how another man, usually as comparable with himself as we have in hand in file, has benefited himself in a business way by installation of our equipment. We go to a man with a 10-minute movie, in which he actually sees what we are talking about. He sees it in color, and sees all of the benefits of increased attractiveness on which we seek to dwell.

"If possible, we go to him with the movies taken not only in a place comparable with his, but owned by a man he knows; the better he knows the man the better we like it. We then are taking something still more specific and real to him.

"In other words, when we come to him with our pictures we show him something real and specific, not a mere generality. He thinks:

"Hmmm. That's what Jones did, is it? Looks mighty fine. I wonder, I wonder?"

"He then inquires how Jones handled that installation. When you have him talking about how the other fellow handled such a job you have taken a long step, of course, in the direction you want to go."

The files of Air-Rite company are kept growing as business of the company permits making of new pictures which have special qualities of adap-

tion to this use. Step by step it reaches out to include more and more practical demonstrations in motion pictures of Texans who have modernized and have gained by doing so.

GOOD IN LOCKER FIELD

Likewise, in the field of frozen foods locker plants, the company has a growing file of pictures in color. It can flash on the screen and show to interested groups just how such plants are operated from the receiving room on through to the individual lockers. And in each instance the pictures have the element of familiarity which gives to them a real interest which is not present in pictures produced by the manufacturer, which obviously must be so general as to become virtual abstractions so far as suggesting to the individual his personal capacity or ability to duplicate.

Cost of equipment used by Mr. Knight is small. He has one of the low-cost Eastman movie cameras, and one of its inexpensive projectors for showing his films. Mr. Adler boasts a rather expensive miniature camera, with a high-priced lens. The camera, however, is one based on his personal interest in the hobby of color photography rather than the demands of its use in the business. Almost any of the modern better class cameras would do equally acceptable work, it is pointed out.

Frick To Equip Skating Rink in California

RIVERSIDE, Calif.—Compressors, cooling tower, and additional refrigeration equipment for a new ice skating rink at Orange Belt Gardens, four miles west of Riverside, will be supplied by Frick Air Conditioning, Los Angeles.

IT WILL PAY YOU TO

Switch Permanently

to DAVISON'S

SILICA GEL

THE PERMANENT, FOOL-PROOF DRYING AGENT



Here's why--

- SILICA GEL HAS 1½ TO 2 TIMES MORE CAPACITY
- SILICA GEL IS FAST—ACTS INSTANTLY
- SILICA GEL REMOVES CORROSIVE ACIDS
- SILICA GEL WILL NOT CAKE NOR POWDER

Add these four Silica Gel advantages to the reasons why you're using your present drying agent—and it's easy to see how you can increase your profits from your business by making Silica Gel your standard drying agent. You'll eliminate complaints from customers; expensive "no charge-repeat" calls. Moisture troubles and freeze-ups become a thing of the past. When a job is done—IT'S DONE—PERMANENTLY!

Join the thousands of "service-wise" engineers and the many manufacturers who say that Silica Gel sets a new standard in drying agent performance.

You can obtain your favorite dryer charged with Silica Gel or Silica Gel for refill from your jobber. Switch to Silica Gel today!

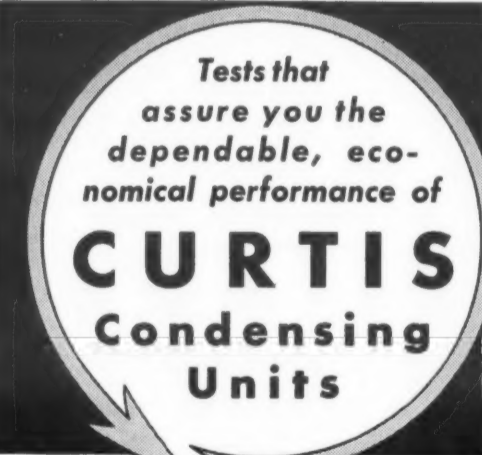
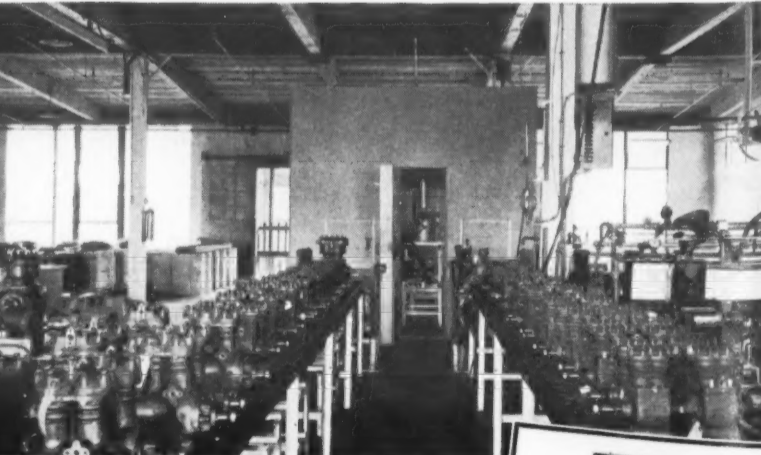
Your jobber will give you complete information.

THE DAVISON CHEMICAL CORPORATION
Silica Gel Department
BALTIMORE, MARYLAND

Tests that assure you the dependable, economical performance of

CURTIS

Condensing Units

The Orifice Test for Volumetric Efficiency

Every Curtis Compressor is given an individual test for efficiency according to standards of the Compressed Air Society. Curtis compressors must maintain a required pressure while running against loss of air through a calibrated orifice—the size of the orifice varying with the capacity of the compressor. This test is reflected in a water column reading that checks volumetric efficiency. The test takes place in an insulated, sound-proofed room where compressors are also checked for quietness in operation.

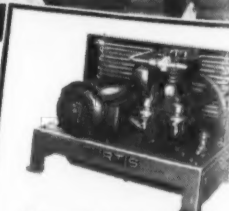
Curtis compressors that do not meet the exacting standards of this test are rejected by inspectors—one of many examples of the care and precision found in every step of Curtis manufacturing methods. The result is the long life, high efficiency and care-free performance of every Curtis Condensing Unit.

Write for full information.

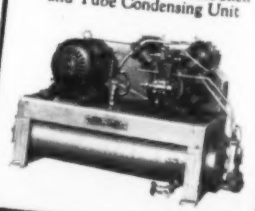
Curtis Refrigerating Machine Company
1912 Kienlen Avenue
St. Louis, Missouri

Established 1854

Division of Curtis Manufacturing Co.



Above—1½ h.p. Air-Cooled Condensing Unit
Below—15 h.p. Cleanable Shell and Tube Condensing Unit



Question of the Week

Answered By

F. O. JORDAN, Registered Consulting Engineer, State of Michigan

Methods of Checking Compressor Efficiency

Service Co.
Newark, N. J.
Hermetic Refrigerator Units
Rebuilding and Exchange Service
June 29, 1940

Editor:

We have purchased to date your Master Service Manuals covering refrigeration helps, and have found them very worth while.

Our reason for writing you at this time is because of our needing information not to be found in the above manuals.

We would like to know if you publish a manual covering the subject of compressors. We want to know what procedure is recommended in order to determine the efficiency of a good compressor and how to distinguish same from a poor one.

Is there a load test that can be given to a compressor in that we mean can a compressor be subjected to a load and time test without installing same to a condensing system.

We have been checking our compressors this way, by connecting a vacuum gauge to the suction side and pumping air through open discharge port. We feel that a test of this nature is a poor one as we feel there is a factor of time to be considered when determining a compressor's efficiency.

Any information pertaining to the above will be most appreciated.

M. G.

Answer: You certainly have the right idea in looking for a quick and simple, yet dependable way of checking compressor efficiency. Of course the average service man cannot afford a complete compressor testing plant involving calorimeters and all the rest of the equipment used by the large manufacturer in his development laboratory, nor can he spend a lot of time doing test work if he is going to make a living keeping the neighborhood refrigerators in operation.

IMPORTANT TO SERVICE MAN

Yet nothing is more important for him than to be able to tell whether the compressor is at fault without tearing it down to see, or to find out if he has put a faulty unit back in good efficient running condition before he goes to the trouble of re-installing it.

Of course you can be pretty sure of yourself by the suction pressure the compressor maintains on the job. If the suction pressure is not too high, you can be sure the compressor is doing its duty. But if the suction pressure is too high and you make sure the condenser is not dirty and is getting plenty of air, the compressor is "on the spot."

Since leaky compressor valves are one of the most common causes of inefficient compressor operation, one of the first things to do to a suspicious unit is to check the valves. If the discharge valve leaks, gas that has already been compressed into the cylinder head will leak back into the cylinder, and the compressor will have to compress it and force it out all over again.

Obviously, this represents lost work and reduced capacity and efficiency. If the suction valve leaks, gas will leak back into the "low side," whence it must be pumped out all over again.

PRELIMINARY CHECKS

The symptoms are high suction pressure and low head pressure, combined with poor refrigeration. A quick way to check this is to run the compressor long enough to warm it thoroughly, then stop it and connect gauges to the gauge openings of the suction and discharge ports. Check the discharge valves by turning the discharge valve in and see how long it takes to pump up around 200 lbs. pressure. It shouldn't take more than two or three seconds. Keep your hand on the switch while checking the compressor with the discharge service valve closed or even partially closed, as you may

have to stop the compressor in a hurry to prevent damage.

The next check for the compressor valves is to close the suction service valve and see how high a vacuum the unit will pump. You should get a vacuum of around 25 inches in a short while. If not, there is something wrong with suction valve. If the vacuum falls rapidly after you shut the compressor down, you can be sure the valves are leaking.

SOME SIMPLE METHODS

The compressor test method you mention of connecting a vacuum gauge to the suction side and pumping air through the unit obviously gives you some indication of the operation of the valves. However, it doesn't tell you the output of the compressor, and anyway I dislike the thought of pulling air through the job on account of moisture and other foreign matter that may enter.

A pretty good, yet simple way of telling what the compressor is doing is merely to connect the suction and discharge together with a piece of tubing and place a restrictor or orifice in the line. The size of the orifice must be selected so that you get approximately the same suction and discharge pressures obtained under the normal operating conditions of the job.

The pressure drop across the orifice tells you what the compressor is actually doing, provided you have already checked it with a unit of the same size to find what the pressure drop should be. If the job being tested cannot develop about the same pressure drop as the compressor you know to be in good condition, it is in need of attention.

PROVIDES COMPARISON

Obviously, all a test of this sort does is give you a comparison between the volumetric capacity and efficiency of a questionable unit and one you are sure of. Hence it tells the story you want to know in simple language.

This volumetric comparison may be obtained with air, but a much better method is to charge the job with refrigerant gas only (no liquid), and, of course, add the usual amount of oil. Then you run no danger of picking up moisture, and if the capacity is proven OK, the compressor is ready to go back on the job.

If you want to be a little more scientific about it, you may use an orifice type flow meter instead of merely an orifice. The only difference is that the flow meter has been calibrated so you know the rate of gas flow through it at various pressure drop readings.

BUILD A FLOW METER

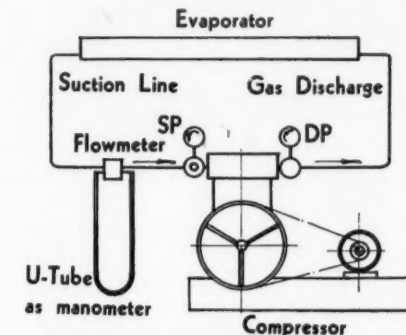
You can make yourself a flow meter quite cheaply by placing a pair of flanges in the line with thin copper plate placed between the flanges as you would install a gasket. In the exact center of the pipe, drill a hole and countersink it so that it forms a "thin edged" orifice.

On either side of the orifice, drill a hole into the pipe as close as possible to the plate. From each hole, run a copper tube to a mercury "U"-tube or "manometer." Now you have a flow meter.

The hole must be small enough to give you the required suction and discharge pressures, and your manometer must be high enough so the pressure difference on the U-tube will not throw the mercury out. Mathematical formulae are available for use in calculating orifice sizes and manometer heights, but probably it will be better for you to work out the best combination for your particular conditions by the good old "cut and try" method.

You calibrate your flow meter by pumping gas through it by means of a compressor whose capacity you already know. Having taken four or five readings in this manner at various rates of flow, you are ready to plot yourself a calibration curve. You do this by plotting manometer readings as "ordinates," or vertical scale readings, and capacities as

To Check a Compressor 'Follow Up' Card Helps Build Serviceman's List



Method of creating a check on compressor efficiency with a flow meter, as described by Mr. Jordan in the adjoining article.

"abscissa" or horizontal scale readings.

Now all you have to do to find the capacity of a compressor is to connect it to the flow meter, take a manometer pressure drop reading and then read the capacity right off your own calibration curve.

ST. LOUIS—Build your prospect list when you're busiest—that's the keynote of the "new customer" program of Frigidaire Refrigeration Service, authorized Frigidaire service agency here.

So every summer—peak season for any refrigeration service firm in these parts, and the time when the most new customer contacts are made—this firm sets out on a definite plan of attack to capture these new customers on a permanent, repeating basis.

The plan consists simply of sending out a small, fold-over, postcard-size mailing piece to every one of the new customers served for the first time.

Names and addresses of these customers are submitted to the dispatcher by the service man handling the job. The card is then mailed immediately, so that the customer

will receive it within a day or two of the time the call was made.

Lithographed in color, the card points out that this is the first time that the company has had the opportunity of serving this customer, and thanks the customer for this opportunity.

A small reproduction of the display advertisement which the company runs in the classified section of the telephone directory reminds the customer that the firm's facilities are only as far away as the nearest phone book.

Bottom half of the card is in the form of a business reply card. Copy on this card asks the customer to state any reactions to the service call, telling whether charges were higher or lower than expected.

Each card received back at the firm's headquarters is filed away as the basis for a future telephone solicitation. But the principal advantage of the cards, reports Service Manager Richard Mathias, is that filling out the questionnaire firmly fixes the company's name in the customer's mind.

IT'S MIDWEST BUILT, IT'S BETTER BUILT

Sell MORE with the COMPLETE MIDWEST Line

It's EASIER to sell when you offer MORE! You can go after—
and GET—more business with the complete Midwest commercial line!

Full Line of 'Reach-In' Models

Real profit builders of 13.5 to 68 cu. ft. capacity. A model for every need.

Three Fine Display Case Lines

Two "Deluxe" lines and one "Leader" line give real value. 6, 8, 10 and 12 foot sizes.

New Midwest 'Walk-In' Coolers

Three types of new Midwest Standard Walk-in coolers. New high quality at competitive price.

DEALERS - DISTRIBUTORS
Some valuable territories still available.
Write for full information on Midwest.

MIDWEST MFG. COMPANY
GALESBURG ILLINOIS

EXPORT SALES DIVISION: 330 S. WELLS ST.,
CHICAGO, ILLINOIS, U. S. A.

Investigate this Lower Priced Refrigeration Control

FRIGIDAIRE'S Precision-Built "YL" SWITCH

- ✓ One Model for All Common Refrigerants (Freon 12; SO₂; Methyl Chloride)
- ✓ Simpler, More Compact Design
- ✓ More Easily Adjusted—has visible scale for preliminary setting
- ✓ Furnished with Low Pressure or Thermostatic Control
- ✓ With or Without Motor Overload Protection
- ✓ High Pressure Cut-Out if Desired (comes in double unit case)

Available in various combinations of units to adapt it to every refrigeration need. Differential—Thermostatic type—minimum 3 to 4 degrees, maximum 10 degrees... Low Pressure type—minimum 5 lbs., maximum 55 lbs.

Write your Frigidaire Distributor today for new low prices. Ask for your copy of descriptive booklet with full details.



TO SATISFY YOUR EVERY REFRIGERATION SERVICE NEED

A Model for Every Commercial Refrigeration Need

MODEL TOO: (shown above) Thermostatic Control without High Pressure Cut-out. Cold Control standard (as illustrated).

MODEL TOH: Thermostatic Control. Includes High Pressure Cut-out. Double unit case. Cold Control standard.

MODEL LOO: Low Pressure Control without High Pressure Cut-out.

MODEL LOH: Low Pressure Control. Includes High Pressure Cut-out. Double unit case.

Overload protection is available in any model as desired.

AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;
Established 1926 and registered as
Electric Refrigeration News

F. M. COCKRELL, Founder

Published Every Wednesday by
BUSINESS NEWS PUBLISHING CO.
5229 Cass Ave., Detroit, Mich.
Telephone Columbia 4242

Subscription Rates
U. S. and Possessions, Canada, and all
countries in the Pan-American Postal
Union: \$4.00 per year; 2 years for \$7.00.
All other foreign countries: \$6.00 per year.
Single copy price, 20 cents. Ten or more
copies, 15 cents each; 50 or more copies,
10 cents each. Send remittance with order.

GEORGE F. TAUBENECK,
Editor and Publisher

PHIL B. REDEKER, Managing Editor
THEODORE T. QUINN, Assistant Editor
Staff Reporters: JAMES McCALLUM,
HENRY KNOWLTON, JR., and
ROBERT M. PRICE

R. T. CARRITHERS, Advertising Mgr.
JAMES B. SMITH, Asst. Adv. Mgr.

JOHN R. ADAMS, Business Manager
M. HELEN COCKRELL, Asst. Bus. Mgr.
LOLA E. DEW, Subscription Manager

Member, Audit Bureau of Circulations
Member, Associated Business Papers

VOL. 31, No. 1, SERIAL No. 598
SEPTEMBER 4, 1940

Copyright, 1940, Business News Pub. Co.

Cooperative Advertising In Question

TWO advertising managers who prefer to remain anonymous—for reasons which will become obvious as you read on—have recently phoned us to talk about the editorial in the Aug. 28 issue of the NEWS, which discussed the dishonesty of "double billing" in cooperative advertising.

This editorial was fine, they said, as far as it went. They had no quarrel with any part of it, and were mighty glad that somebody was putting the finger on this nefarious practice. But they did have a gripe, however. Why doesn't the industry in general—and the NEWS in particular—open up this whole subject of cooperative newspaper advertising?

"Cooperative advertising," said one, "is like this: Eet steenks!"

Competition for Big Dealers Puts It on Rebate Basis

In the case of big dealers, it was pointed out, the cooperative newspaper advertising allowance has sometimes degenerated to the status of a rebate. Accounts are won and lost—lines are featured or buried—on the strength of the size of the advertising allowance dangled in front of the buyer by the manufacturer.

Competitive bidding in this fashion can make an account unprofitable, even if the loss of handling it is charged off to "promotion" and "prestige."

Small Dealers Advertise Only Half As Much

In the case of small dealers, these big allowances to big dealers work as a boomerang. They understand the cooperative advertising set-up pretty well, and the big space run by their uptown competitors can make them envious.

Partly as a result, and partly because of the nature of the animal, the small dealer is likely

to use his advertising allowance to cut his advertising expense, rather than to increase his advertising.

Conversely enough, lines on which he receives no advertising allowances then get the heaviest portion of his advertising budget. Lines which do make advertising allowances thus help pay the freight for lines which don't.

Difficult to Check

Expenditure, Once Started

Another reason why some advertising managers dislike the cooperative idea is that dealers come to regard their allowance as an inalienable right; and when the budget runs out, and no more such funds are forthcoming, the dealers get pretty upset about it.

(You can't blame the dealers for this. They've been promised something, and if they don't get it, they have a right to kick. It's the system which is wrong, say our informers.)

Whenever a manufacturer gets into a jam—and even the best of them sometimes do—the cooperative advertising budget is one item that is inflexible. If trimmed, along with all other budgets, it usually means the loss of key accounts and general goodwill.

Advertising Manager's Time Loaded Up With Detail

So much of the national advertising manager's time is occupied with settling arguments and keeping records on cooperative advertising programs that he doesn't have time to devote to his most important task, which is selling through print.

Having assistants doesn't help much, it is woefully reported. The dealer always insists on dealing with the advertising manager in person, and usually by telephone. Hence the advertising manager today is becoming more and more a combined diplomat-and-record-clerk.

For creative work the advertiser must lean heavily on the agency. Thus excellent talent is going to waste—talent which could help all dealers sell more goods.

Idea Is Thoroughly Intrenched, But Needs Appraising

The cooperative advertising idea is probably too thoroughly entrenched in many sectors of the industry to be budged out of the budget, even though so many people seem to agree that it is uneconomic and wasteful.

Nearly everybody has been forced into it by the heat of competition, and would be afraid to abandon the idea in favor of a better one for fear of what such action might do to their distribution. Competition for good dealers is terrific these days.

Perhaps those who do see faults in the idea, however, might study ways and means of educating the trade, however, as to the waste inherent in the system, and the benefits that would accrue to individual dealers if a better controlled and more-equitable-for-all-dealers system of newspaper advertising were devised.

They'll Do It Every Time . . . By Jimmy Hatlo



Copyright, 1940, King Features Syndicate, Inc. World rights reserved

TRYING TO TELL THE GANG AT THE OFFICE HOW YOU REALLY GOT THE GORGEOUS SHINER -
THANK TO JACK HORNELL-SAN FRANCISCO

LETTERS

List of Tray Manufacturers

Atlas Appliance Co.
921 G St., N.W.
Washington, D. C.

Editor:

We would appreciate it if you would send us a full list of all manufacturers of ice cube trays and defrost trays. The defrost trays we would like to get either in porcelain or glass.

We would appreciate it if you would send us this list immediately.
JAHN MAC UDKO

Answer: The following companies manufacture ice cube trays:

Aluminum Goods Mfg. Co.
Manitowoc, Wis.
Detroit Stamping Co.
3445 W. Fort St., Detroit, Mich.
Hoosier Lamp & Stamping Corp.
1511 Read St., Evansville, Ind.
Inland Mfg. Div., General Motors Corp.
2727 Inland Ave., Dayton, Ohio.
Manufacturers of defrosting trays, both metal and glass, are:
Aluminum Goods Mfg. Co.
Manitowoc, Wis.
Challenge Stamping & Porcelain Co.
Grand Haven, Mich.
Columbian Enameling & Stamping Co.
Beech St., Terre Haute, Ind.
Hoosier Lamp & Stamping Corp.
1511 Read St., Evansville, Ind.
Ingram-Richardson Co.
32nd St., Beaver Falls, Pa.
McKee Glass Co.
Bullitt Ave., Jeanette, Pa.
Sneath Glass Co.
Hartford City, Ind.

Deodorizers

Gibson Refrigerator Co.
Greenville, Mich.

Editor:

Can you furnish us a list of names of manufacturers of deodorizers to be used in connection with refrigeration?
H. WILSON

Answer: The Dorex Division, W. B. Connor Corp., 114 East 32nd St., New York City.

Betz Air Conditioning Corp., 6 West Ninth St., Kansas City, Mo.
Ohio Carbon Co., 12508 Berea Rd., Cleveland, Ohio.

Charging Board For Refrigerants

Radio Supply Co.
13-15 East Central Parkway
Cincinnati, Ohio

Editor:

We are thinking of installing a gas dispenser or charging board for sulphur dioxide, methyl, and "Freon." We would like the best, and if possible, the most economical equipment.

We would appreciate it if you sent to us full details concerning this gas dispenser as well as any other information you might have in mind.
BRYAN ATKINS

Answer: Up-to-date charging board installations have been described in

articles in AIR CONDITIONING & REFRIGERATION NEWS during the past year. These include:

The charging board used by Refrigeration Parts & Supply Co., Denver, Colo., described in the May 10, 1939 issue.

The refrigerant transfer system using Temprite coolers designed and installed by J. M. Oberc, Inc., of Detroit was described in the Aug. 16, 1939 issue.

The charging board system installed by the Pittsburgh branch of Melchior, Armstrong, Dessau Co., Inc. was described in the Dec. 6, 1939 issue.

The new charging board just installed by Brass & Copper Sales Co. of St. Louis is explained in the Aug. 21, 1940 issue.

Sample Copy of Service Contract

Box 187
Waterford, Wis.

Editor:

Are you in a position to furnish a sample copy of a service contract as used in refrigeration service work on commercial, also some sort of contract form for household refrigeration work?

The form I have in mind is one where a certain charge per month is made covering inspection and adjusting of commercial machines in stores with parts and extra labor for installing the same are charged as extra.

I am also interested in going into the servicing of stokers and oil burners and wonder if you have any information or could suggest any trade papers or handbook on this subject which the writer could purchase.

WALTER L. HUEINING

Answer: We are sending you a tearsheet from an article appearing in the NEWS some years ago giving the form and wording of such a contract. Further information about such contracts can be found in articles which appeared on page 17 of the March 29, 1939 and page 13 of the Dec. 27 issues of AIR CONDITIONING & REFRIGERATION NEWS.

For information on books covering oil burner servicing write the Oil Burner Institute, 30 Rockefeller Plaza, New York City. For information on literature on the servicing of stokers, write Coal Heat Magazine, 20 W. Jackson Blvd., Chicago; and Anthracite Institute, 19 Rector St., New York City.

Assist Sales Force

Zagel Furniture & Carpet Co.
222 S. Wabash Ave., Chicago, Ill.

Sirs:

Kindly send us 24 copies of Volume 29, No. 13, Serial No. 575, and oblige. Inasmuch as we have just entered the retail field of home appliances, we feel that this particular publication will help materially in assisting our sales force.

Will you oblige us greatly by sending these as soon as possible.
S. S. ZAGEL

Continued Success

Tuthill Pump Co.
939 E. 95th St., Chicago, Ill.

Dear Mr. Taubeneck:

May I join with your host of friends in extending hearty congratulations

and wish you and your associates continued success in the publication of the industry's "official weekly newspaper."

H. T. KESSLER, Vice President,
Refrigeration Products Sales

QUOTED

The Future of the Cities

(From Advertising Age, Sept. 2)

WE have commented heretofore on the significant picture presented by 1940 census figures on the population of our large cities, which in most cases have shown little gain during the past decade, and in a number of instances have suffered losses. The sharp reversal of a trend of expansion which had been in evidence for the previous 30 years has been explained in part by such evident influences as decentralization of business and industry, the rapid development of suburbs because of better roads and universal use of the automobile, and the effect of the depression in holding farm youth in rural areas instead of permitting the traditional movement to the cities.

The situation is too serious, however, to be dismissed merely because an explanation of facts can be logically presented. From the standpoint of the cities themselves, the problem, in terms of depreciation of property values, decline of tax revenues and increasing fiscal difficulties due to larger burdens on local government, is one which must be solved if American municipalities are to maintain their position as centers of manufacturing, distribution, and cultural influence.

Hence the studies now undertaken by the Urban Land Institute in 10 representative cities, to determine changes which are taking place in the volume of retail trade in central business areas; construction and demolition of buildings in those areas; volume of traffic; occupancy of office buildings, tax delinquencies, and similar factors, should be of great value and significance to all concerned with urban life and urban markets.

Unfortunately, the problem is not entirely economic. Widespread deterioration of municipal government, extensive and ruthless racketeering on the part of certain labor groups and exploitation of taxpayers as part of a political program, must all be held accountable for some of the results. Any changes for the better must therefore include more aggressive action by business to eliminate these destructive influences.

Distributor-Dealer Doings

Cooper's 'Dawn Patrol'



S. B. Maher, sales manager of R. Cooper Jr., presents prize check to H. W. Kayser, "ace" of the sales campaign, while other winners look on.

'Lightning War' Hits Chicago as Cooper Forces Capture \$100,000 In Contracts

CHICAGO—At dawn June 11 a "lightning war" hit the Chicago area. The invading "brigades" were members of the sales force of R. Cooper Jr., Inc., G-E distributor here, who staged the "Cooper Air Conditioning and Commercial Sales Blitzkrieg," reaching its objective July 18.

Official "communique" from the Cooper G.H.Q. reads:

"The Cooper regime has taken over all of the area of \$100,000 air conditioning and commercial contracts. The surrender of this area is complete, and no resistance is being offered. Occupation by equipment has already begun, and is being carried forward rapidly.

"On June 11, R. Cooper Jr., Inc. declared war on the state of quota and sales for air conditioning and commercial equipment. They took on the activities of a state of war,

mobilizing troops for definite action to increase sales.

"The objectives were reached and held by an able air force commanded by R. Cooper Jr., head of the firm. His squadron commander, S. B. Maher, general sales manager, with the assistance of C. G. Rood, vice president (air conditioning), G. Larsness (commercial), and H. Cagney (apartment house) carried out the orders of Flight Commander Cooper to the nth degree.

"The quota for the campaign was \$60,000, which was surpassed up to the amount of \$100,000.

"H. W. Kayser was awarded the special commission of 'Ace' for his \$37,101.20 victory.

"Remobilization of effort is now being effected, to complete a new drive to be carried out during the remainder of 1940."

Vim Electric Opens New Store In New York City

NEW YORK CITY—Vim Electric Co., operator of a chain of stores merchandising electrical appliances and other products throughout the metropolitan district, has leased the corner store at the corner of East Fordham Rd. and Walton Ave.

Greusel Addresses Racine Jobbers' Association

RACINE, Wis.—Frank Greusel of the Greusel Distributing Corp., Milwaukee, a director of the Wisconsin Radio, Refrigeration and Appliance Association, addressed the monthly meeting of the Racine Wholesalers and Jobbers' Association July 29.

Dealers Report 9.4% June Sales Gain

WASHINGTON, D. C.—Sales by household appliance dealerships reporting to the Department of Commerce during June were 9.4% higher than those in the same month last year, compared with an average increase of 7.7% for all stores, 24,191 firms, reporting for the month.

For the same period, radio and music stores reported sales gains of 10.2%, and furniture stores, 9%. Motor vehicle dealers reported the greatest increase for the month, 23%.

During the first six months of the year, sales by appliance dealers reporting in the survey were 12.5% higher than in the same months of 1939, compared with 7.2% for all stores reporting. In the same period, sales by furniture and radio and music stores were 9.9% above corresponding 1939 totals.

States reporting the largest sales gains included Ohio (12.9%), Idaho (12.9%), Pennsylvania (12.2%), Indiana (10.6%), Connecticut (9.9%), Michigan (9.6%), and Illinois (9.4%). For the year to date, all states showed sales increases over 1939.

Accent on Merchandising

CHARLOTTESVILLE, Va.—Ray Fisher, General Electric dealer here, is all set to move into his new building, which was designed exclusively for the improved merchandising of G-E appliances.

Who's Who Where

C. J. Coward Named Head Of MKB Plan Group

NEW YORK CITY—Charles J. Coward, newly appointed advertising manager of Nash-Kelvinator Corp., has been appointed chairman of the plan committee of Modern Kitchen Bureau, announces W. H. Sammis, chairman of the bureau. Mr. Coward succeeds J. Nelson Stuart, who has resigned as plan committee chairman.

Former Utility Salesman Heads Dealer's Sales

MCCOLL, S. C.—Francis Chamness, formerly a salesman for Carolina Power & Light Co., is now handling the sale of major appliances for McLaurin Hardware Co., General Electric and Kelvinator dealer here.

Pierce To Direct Crosley Car Sales In N. England

CINCINNATI—R. M. Pierce has been appointed district manager of the automobile division of Crosley Corp. for the New England states. Formerly Boston regional manager of the American Bantam Car Co., he has been with the commercial car division of General Motors and wholesale and fleet sales representative for Chrysler Corp.

California, Here They Come—Five New Refrigeration Firms

LOS ANGELES—The newly organized Coldspot Electric Refrigeration Repair Co., located at 411 S. Fairfax Ave., is under the proprietorship of Eidson M. Fabian.

POMONA, Calif.—Harold E. Cluff and Stanley L. Quiggle have organized the Acme Refrigeration Co., with headquarters at 557 E. 2nd St. here.

WILMINGTON, Calif.—Morcold Refrigeration Co. has been opened at 314 Wilmington Blvd. here by Anthony S. Ross.

SANTA ANA, Calif.—Andrews & Archibald Refrigeration Sales & Service has been organized at 206 West First St. here. Nathan F. Andrews is president of the new company.

LOS ANGELES—J. W. McLarnen has organized McLarnen Refrigeration Co., with headquarters at 4856 Santa Monica Blvd.

This is the Coat of Arms of
ALEXANDER HAMILTON
The symbol of a man
whose long range foresight
helped build a Greater America

This is the Symbol of
UNIVERSAL COOLER CORPORATION
Who Build Toward a Greater Future

Every institution will grow and flourish in proportion to the efforts concentrated toward its promotion and support. The successful growth of this organization is attributed to the enthusiastic support of leading manufacturers of refrigeration equipment who recognize the quality and efficiency of our condensing units. Our policy is to produce quality units that in their satisfactory operation, reflect our ability to uphold your product prestige. Manufacturers are invited to request complete details.

UNIVERSAL COOLER CORP.
DETROIT, MICHIGAN
In Canada, Universal Cooler Co., of Canada, Ltd.
Brantford, Ontario

SQUARED IN REFRIGERATION

Flexible!

CLASS 9110 REGULATORS

From the basic unit, these features are available:

Manual Cut-in • Manual Cut-out • Limited Range • High Side Manual Reset • Universal Bulb • Fixed Differential

DO IT ALL WITH SQUARE D—SWITCH • PROTECT • REGULATE

SQUARE D COMPANY
REGULATOR DIVISION
DETROIT • MICHIGAN

Jobber Inquiries Invited

Write for Bulletin

Anytime

Anywhere

YOU'RE ALWAYS NEAR A SOURCE OF

DU PONT Artic

The Preferred METHYL CHLORIDE for Service Work

DU PONT E. I. DU PONT DE NEMOURS & COMPANY (INC.) • The R. & H. Chemicals Department • Wilmington, Delaware

District Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

Nema July Commercial Sales Over 20,000 Unit Mark

The following report of commercial refrigerating equipment sales for July, 1940 was made to the Commercial Refrigeration Section of the National Electrical Manufacturers Association (Nema) by the following 15 companies:

Baker Ice Machine Co., Inc., Brunner Mfg. Co., Carrier Corp., Crosley Corp., Frigidaire Div. General Motors Corp., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Merchant & Evans Co.,

Norge Div. Borg-Warner Corp., Servel, Inc., Universal Cooler Corp., Vilter Mfg. Co., Westinghouse Electric & Mfg. Co., and York Ice Machinery Corp.

SALES FOR JULY, 1940	Domestic		Canadian		Other Foreign		Total World	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1. Bottle Water Coolers—Complete.....	435	\$ 31,385	5	\$ 378	17	\$ 1,197	457	\$ 32,960
2. Pressure Water Coolers—Complete.....	3,036	300,369	39	3,718	99	9,092	3,174	313,179
3. Water Coolers—Low Side Only.....	73	5,489	1	42	1	54	75	5,585
4. Ice Cream Cabinets—Complete.....	2,203	358,932	89	14,704	36	6,765	2,328	380,401
5. Ice Cream Holding Cabinets Only (Remote)....	155	22,692	3	447	.....	.....	158	23,139
6. Bottle Beverage Coolers—Complete.....	3,739	359,857	1,064	70,932	63	8,134	4,866	438,923
7. Beverage Coolers (No High Sides).....	54	4,102	5	317	.....	.....	59	4,419
8. Milk Coolers—Complete.....	5	545	.....	.....	1	337	6	882
9. Milk Cooling Cabinets (No High Sides).....	54	2,568	.....	.....	.....	.....	54	2,568
10. Commercial Evaporators—Not Reported Above (Including Cold Diffusers, Brine, and Other Spray Evaporators, Etc.).....	2,188	100,561	308	9,050	238	12,083	2,734	121,694
11. Condensing Units Less Than ½ Hp.....	2,985	130,839	84	3,646	153	7,476	3,222	141,961
12. Condensing Units—½ Hp.....	3,458	199,738	48	2,982	129	8,240	3,635	210,960
13. Condensing Units—¾ Hp.....	1,911	159,353	43	3,758	110*	9,716*	2,064	172,827
14. Condensing Units—1 Hp.....	1,091*	117,281*	18	2,038	34	3,892	1,143	123,211
15. Condensing Units—1 ½ Hp.....	686	92,679	12	1,663	45	6,121	743	100,463
16. Condensing Units—1 ½ Hp.....	312	53,165	7	1,238	17	2,879	336	57,282
17. Condensing Units—2 Hp.....	195	39,504	5	1,003	9	1,871	209	42,378
18. Condensing Units—3 Hp.....	113	35,239	2	320	7	1,637	122	37,196
19. Condensing Units—5 Hp.....	60	24,858	1	363	5	1,854	66	27,075
20. Condensing Units—7 ½ Hp.....	18	10,429	.....	.....	1*	308*	17	10,121
21. Condensing Units—10 Hp.....	28	26,963	.....	.....	.....	.....	28	26,963
22. Condensing Units—15 Hp.....	6	3,345	.....	.....	.....	.....	6	3,345
23. Condensing Units—20 Hp.....	.....	.....	.....	.....	1	5,790	1	5,790
24. Condensing Units—25 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
25. Condensing Units—30 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
26. Condensing Units—40 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
27. Condensing Units—50 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
28. Total—All Condensing Units (11 to 27).....	10,863	893,393	220	17,011	509	49,168	11,592	959,572
29a. Condensers—Sold Separately Shell & Coil or Shell & Tube.....	.....	.....	.....	.....	.....	.....	.....	.....
29b. Evaporative Type.....	4	1,960	.....	.....	1	693	5	2,653
30. Total—All Commercial Refrigeration.....	.....	\$2,081,853	.....	\$116,599	.....	\$87,523	.....	\$2,285,975

*Includes sales and credits.

Long Beach Servicemen Hold a Contest

LONG BEACH, Calif.—A soldering contest featured the August meeting of the Long Beach chapter of Refrigeration Service Engineers Society. Winners of the contest were H. Bowe and P. Travers.

Supervising the contest held at Willis Refrigeration Service were John Ross of Prestolite and Van D. Clothier of Kerotest. Mr. Ross gave a talk and demonstration of different types of soldering.

At the meeting new members were

accepted into the chapter and committees for the coming year were appointed. President Everett P. Brown presided at the meeting at which plans for a weiner-bake were completed.

Gould, Warren & Engel Form a Dealership

LONG BEACH, Calif.—Associated Refrigeration & Heating Co., located at 412 E. 4th St., is a newly organized concern here, under the proprietorship of L. S. Gould, M. H. Warren, and John H. Engel.

Promotion Reveals Purchasing Agents' Desire For Laughs

(See illustrations at right)

BLOOMFIELD, N. J. — "Laugh, Buyer, Laugh" might have been an appropriate name for the direct-mail campaign on water coolers employed this year by the General Electric commercial refrigeration department. The campaign disproved the theory that granite-faced purchasing agents, as they are usually depicted, don't like a laugh as well as anyone.

First three letters in the mail promotion series discussed the product—water coolers—in terms of health, economy, and performance. Final letter offered the buyers a set of six attractively mounted copies of the cartoons used in G-E's 1940 water cooler advertisements.

"Let's forget all about buying water coolers," this final letter read "and consider six outlandishly funny cartoons recently completed by W. Steig, Paul Webb, Richard Taylor, Robert Day, Hoff, and Roese. These cartoons are the sort of thing featured by the New Yorker, Esquire, Collier's, and the Post. Only they're elaborately printed, on 20 by 16 inch special mat paper. Framed and hung in your office, they'll give you a much needed lift."

The letter ended with this casual P.S. "Yes, we still concentrate on making the best water coolers. Cartoons are definitely a sideline."

Returns are still coming in, at last count a total of 281 had been received. Many were direct leads for water cooler sales. All replies were turned over to distributors for personal delivery of the cartoons.

Unit Conditioner Helps Preserve Fur Vault's Attractive Appearance

NASHVILLE, Tenn. — To cool its fur storage vault and yet to maintain an attractive interior appearance, the White Way Laundry here has installed a Frick unit air conditioner.

The refrigerating machine was placed in the basement, under the storage room. The installation was made by Nashville Machine & Supply Co.

Humidity within the vault is kept at 40%. A steam heating coil is located inside the unit's cabinet. Two humidistats ring alarms if the air gets too moist or too dry.

Carbon dioxide treatments are given the furs at intervals.

Sophisticated Cartoonists Promote Water Cooler



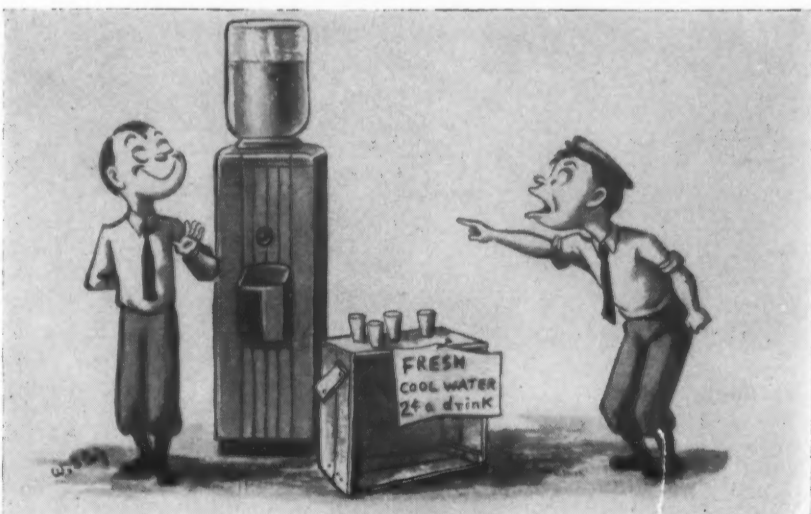
"That's our treasurer—he worships the G-E water cooler since he learned it costs only 2¢ a day to operate."



"Ever since the Boss found out that his new G-E Water Cooler costs only two cents a day to run he feels he can afford a fountain girl."



"Ever since he's been to the city, he won't drink from nothing but that new-fangled General Electric Water Cooler."



"Robber! You can run that G-E water cooler ALL DAY for only 2 cents!"

Let The Records Speak

The nation-wide acceptance of MASTERBUILT LOCKERS is best told by the record of sales from year to year. These records (shown below) speak for themselves.

1935 sales taken as basis	100%
1936 sales based on 1935	157%
1937 sales based on 1936	200%
1938 sales based on 1937	146%
1939 sales based on 1938	140%

1940

sales to August 22, based on
same period in 1939

Master Leads

The fact that Master sales exceeded each preceding year by from 40% to 100% is certainly significant. The trade recognizes and appreciates the outstanding features and advantages that come with MASTERBUILT LOCKERS.

SAF-T-LOC

Food Storage Locker

This new and up-to-the-minute locker (illustrated) meets every requirement of the Locker Operator for design, construction, ease of assembly by unskilled labor and low erection costs, low freight rates, individual units which permit removal from bank, sanitation, etc.

Get Complete Details

You will want all of the facts. Write for them today. Better be safe than sorry.

Endorsed by and sold only through distributors of refrigeration and insulation.

MASTER REFRIGERATED LOCKER SYSTEMS, Inc.
121 Main St. Sioux City, Iowa

Nearly 200,000 Masterbuilt Lockers in Use



CRAMMED WITH FACTS THAT SELL

ZERO PADS

Write today for this book on
NEW TUBELESS COLD PLATES!

Write for
full details
today

Peerless
OF AMERICA INC.

Midwest Factory General Offices—515 West 35th Street, Chicago
Branch Offices: New York, Los Angeles, Dallas, Export Div., Detroit

General Service Complaints on All Types of Counter Freezers (Cont.)

With Special Reference To Excessive Freezing And Hardening Times

By Arch Black and Dean C. Seitz

Editor's Note: This instalment on the servicing of counter freezers continues with "general complaints" that may apply to all types of freezers. Both causes and suggested remedies are given. The authors will later discuss complaints on specific makes.

Complaint No. 2—Excessive Freezing Time

Check:

(A) Scraper blades for dullness and trueness.

(B) Refrigerant and/or brine temperatures and circulation.

"A"—SCRAPER BLADES

Cause: Blades not fitted to scrape walls evenly or dull.

Effect and Remedy: See "A" under Complaint No. 1, or form blades if necessary to fit inner walls.

"B"—REFRIGERATION

Cause: High refrigerant or brine temperatures.

Effect: Excessive time to remove heat from mix.

Remedy: There are many causes to be considered and of course the remedy is dependent upon the cause. Below is listed a series of possible sources of trouble and remedies.

Complaint No. 4—Freezer Motor Overheats or Stalls

Cause 1: Freezing cream too stiff.

Remedy: Freeze to proper consistency (see Step 5, Freezer Operation, Aug. 14 issue).

Cause 2: Customer neglects to oil motors periodically or grade of oil used is too light.

Remedy: Obvious.

Cause 3: Low Voltage—An indication of low voltage is that the motor may become extremely hot even though running under light loads.

Remedy: Check with the power company.

Cause 4: Scraper blades not sharp. When not sharp scraper blades show a tendency to stick to freezer wall and often will overload motor more than 25% causing motor to cut-out.

Remedy: See complaint No. 1 "A" regarding sharpening of blades, in the Aug. 28 issue.

Complaint No. 5—Excessive Hardening Time

Check:

(A) Refrigeration system.

(B) Brine temperature.

(C) Frost accumulation on tanks.
(D) Method of storing.

"A"—REFRIGERATION SYSTEM

See "B" in complaint No. 2 and be sure to reset low pressure control if it is found to be cutting out too soon. Also check door gaskets and see that drain is plugged.

"B"—BRINE TEMPERATURE

Cause: Brine level too low.

Effect: Cream hardens quickly on bottom but slow on top.

Remedy: Check hose connections and add sufficient brine to bring it up to proper level limit.

Cause: Brine temperature too high.

Remedy: Check freezing point of brine and the refrigeration system thoroughly for cause of ineffectiveness.

"C"—FROST ACCUMULATION

Cause: Excessive frost formed on the side of the hardening tanks.

Remedy: Remove frost with a stiff brush. Customer should be instructed to defrost periodically and cautioned never to use an ice pick or anything inclined to cause a puncture.

"D"—METHOD OF STORING

Cause: Air circulation retarded.

Remedy: Rearrange packages to allow for free air circulation. Inform customer that packages packed closely prevent air circulation. (Note: Temperature in any hardening cabinet will naturally rise after a large batch of ice cream has been placed in the cabinet. After it has been cooled to cabinet temperature the temperature will then drop.)

Complaint No. 6—Coarse or Grainy Ice Cream

1. Freezing too rapidly or large changes in temperature of hardening

cabinet.

2. Sometimes caused by minute portions of milk powder that have not fully dissolved.

Complaint No. 7—Ice Cream Falling In Can

1. Too high an overrun.
2. Slow hardening.

Service Volume Built By Calls Before Trouble Is Reported

CAIRO, Ill. — Smoothing the way for service sales by making goodwill calls on prospective customers before service is needed has put the profit stamp on the service department of Robinson Electrical Service Co.

These goodwill calls have produced very positive results. The company has served every user in the three-county area surrounding Cairo, and during that time has established the record of never having changed a unit on a new piece of equipment—domestic or commercial.

In the service merchandising plan, the company's three service men spend part of each day following up user leads and making the company known to potential service customers. Sales reports of all dealers in the territory are carefully watched, and all refrigerator installations are recorded in the office within a day.

Procedure on the goodwill calls is simply self-introduction by the service men, showing the housewife

the company's display advertisement in the telephone book.

First service charge also covers the cost of call-back one week following the first service visit. Each service ticket is left on the order spindle in the office for the second call. On the second call, the service man asks the customer whether he can do anything for her, oils the unit completely, and thanks her again for the business.

Causes and Remedies of Excessive Freezing Time Where The Refrigeration System Is at Fault

Causes	Remedies
Expansion valve improperly adjusted.	Adjust valve so that return line frosts out of cylinder several inches or in accordance with the recommended setting as is described later for a given manufacturer's freezer.
Compressor or mixer motor belts slipping.	Check both sets of belts for proper tension.
Temperature of mix too high; mix not balanced or processed correctly.	Check with company supplying the mix. Also bear in mind mix should be put in freezer at a temperature below 40° F. (See handling of mix in Aug. 14 issue.)
Shortage of refrigerant.	Find the leak and recharge.
Compressor inefficient.	Test compressor. Check water supply and temperature, etc.
Operator attempting to freeze ice cream too stiff or to a too heavy consistency.	Explain to the operator that such a procedure is in error and unnecessary as undue strain is put on motor.
Restricted expansion valve, filter, dehydrator, strainer, or freezer hand valve; closed copper tube lines from frost formation in flare nuts, etc.	If the pressure does not rise, or if it falls rapidly when the compressor starts, insufficient refrigerant is being supplied to the freezer. Complete clogging of the liquid line can be best found by slightly loosening one flare nut after the other, starting at the receiver. Partial clogging will be indicated by a cold liquid line starting from the point of restriction which acts like an expansion valve. Check these devices and the system for moisture.

Complaint No. 3—Freezer Noisy

Causes

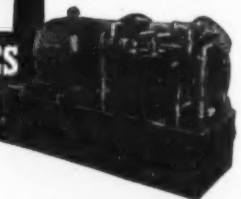
1. Agitator assembly belt.
2. Bolts holding freezer head loose.
3. Floor sagging or freezer not level.
4. Freezer pulley loose.
5. Freezer motor pulley loose.
6. Belts loose.
7. Oil low in gear case.

Remedy

1. Straighten or replace.
2. Tighten.
3. Floor should be reinforced if necessary. Shim up.
4. Tighten.
5. Tighten.
6. Tighten or replace.
7. Check for oil leak and refill case to oil level plug.

SERVEL COMMERCIAL REFRIGERATING MACHINES

Whether your requirements are large or small, standard or special, Servel engineers can help you solve your most vexing problems of commercial refrigeration or air conditioning. Write today to Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Ind.



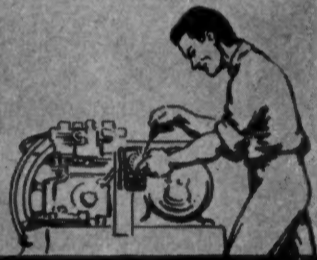
NEED TIME FOR EXTRA JOBS?

USE

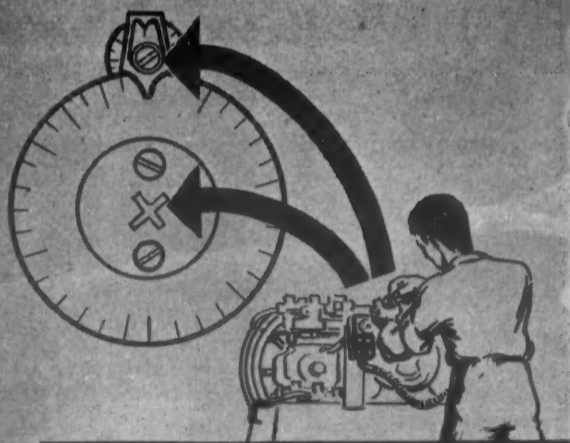
White-Rodgers

PRESSURE CONTROLS

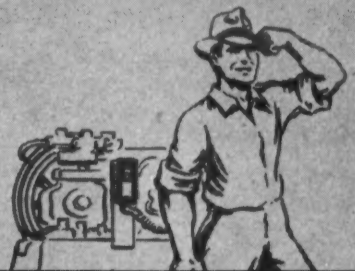
1. Make pressure and electrical connections.



2. Quickly set cut-in and cut-out temperatures on calibrated easy-to-read dial.



3. Throw the main switch, and start for the next job.



Guess-work and repeated gauge testing is out-dated by White-Rodgers uniformly calibrated, easy-to-read dials. A quick twist of the screwdriver and both cut-in and cut-out pressures are instantly obtained.

Ease of setting plus other time-saving features of White-Rodgers Pressure Controls, combined with their accurate performance and trouble-free switch operation has made them the outstanding favorite of refrigeration men everywhere.

Write today for the new White-Rodgers Condensed Refrigeration Catalog. Then see for yourself how much time and money you can save on your next installation by using White-Rodgers Controls!

TYPE 1531

Low-side Pressure Control. Range, 22 inches of vacuum to 50 lbs. — adjustable differential 5 to 35 lbs.



WHITE-RODGERS

ELECTRIC COMPANY

1211 CASS AVENUE • ST. LOUIS, MO.

Controls for Refrigeration • Heating • Air Conditioning •

Multiple Units For Operating Rooms Meet Varied Needs of Surgeons and Patients

MINNEAPOLIS—Maximum flexibility in temperature and humidity control is made possible by the use of multiple year-around central station air conditioning systems installed to serve surgery and delivery rooms at the Abbott Hospital here.

With a system of this type, surgeons can select the exact performance characteristics most suitable for the problem at hand.

Various factors, such as the explosion hazard from the use of anaesthetics, physical condition and age of operative cases, type of ailment, and perspiration of operating surgeons, all require close control of the individual operating rooms. With the multiple central station system used in Abbott Hospital, a number of operations may be conducted simultaneously, with each surgeon and his staff working under separate atmospheric conditions.

The five operating rooms and two delivery rooms are served by separate conditioners having refrigerant coils, steam coils, screen drip humidifier, and individual duct systems. Each room is kept at the required temperature and relative humidity by an automatic, air operated control system.

Each central conditioner supplies 500 c.f.m. of air drawn from the corridor to the room it serves. Provision is made for 100% exhaust from the rooms, which average about 3,500 cu. ft.

As the air passes through the conditioning units, its temperature is regulated and relative humidity is increased to a point between 50 and 60%, depending on the type of patient in the room. This offsets the danger of explosion hazard, but higher humidities tend to increase the perspiration problem.

The central station conditioners are provided with refrigeration by a 7½-ton compressor located in a penthouse immediately over the various rooms. Dehumidification is regulated by back-pressure valves located in the suction lines running from the conditioners to the refrigerating machine. These valves are normally set at 50 lbs.

Multiple conditioners for the two delivery rooms are served by a separate 3-ton compressor.

Use of air-operated controls to start and stop the conditioners, and regulate temperature and humidity in the rooms, eliminates the danger of explosion caused by electrical contacts in the conditioned space.

The relays which actuate the motors and solenoid refrigerant valves are located in the corridor outside the operating rooms, to avoid the danger of sparks from this source. Motors are explosion proof.

Thermostats for the cooling coils are indirect acting, air pressure closing the electric circuits. Humidistats and heating thermostats are direct acting through air pressure alone.

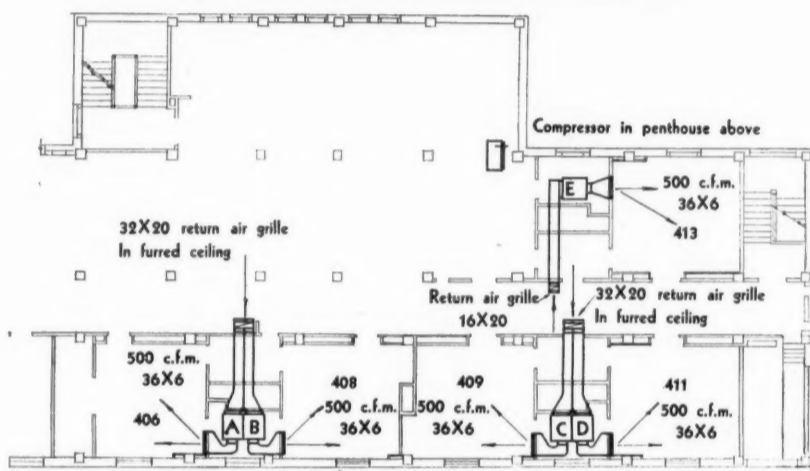
To place the system for any one of the rooms in use, it is only necessary to snap the air switch and set the various controls in that particular room. Further operation is completely automatic.

According to hospital officials, ordinary surgical cases require a sensible temperature of from 82° to 85° F., with relative humidities from 50 to 55%.

Specific types of surgery, and specific surgical subjects, require variations from these standards. Where the subjects have upper respiratory infections, or in the case of children, cooling must be reduced. When local anaesthesia is used, lower room temperatures may be maintained.

The system was planned by Magney & Tusler, architects and engineers, Minneapolis, with the cooperation of R. W. Evans, associated with the General Electric distributor, formerly Sutherland Air Conditioning Corp., Minneapolis; now Conditioned Air Equipment Co., St. Paul.

Layout of Abbott Hospital System



The above drawing shows conditioners A, B, C, D, and E that supply 500 c.f.m. to each operating room from the hall. Refrigeration is supplied by G-E compressors located in a penthouse directly above these rooms. Each system has its own automatic controls.

EASY BENDING

You get it in WOLVERINE TUBING

—Buy From Your Jobber—

WOLVERINE TUBE CO. DETROIT

Perfect Pump!



Here is the little giant of the ½ h.p. field. Larger cylinders with the same low speeds give greater capacity. Mills Novelty Company, 4100 Fullerton Avenue, Chicago, Ill., has interesting refrigeration literature to send you free. Write!

Stewart-Warner USES SYLPHON BELLOWS

As the Heart of Good Crankshaft Seals



The Sylphon Bellows is the most effective, most durable crankshaft seal. Many manufacturers of refrigerators and condenser units have proved this... for years have been consistent users of Sylphon Bellows Assemblies for seal joints.

No device could have earned such wide acceptance among leading manufacturers if it were not for genuine evidence that Sylphon Bellows assure long and trouble-free life in the mechanisms in which they are used... keep their products sold and minimize service problems.

Investigate. Use the engineering services we offer, freely, for the solution of specific problems. Ask for Bulletin R-311.



THE FULTON SYLPHON CO. KNOXVILLE, TENNESSEE

Representatives in All Principal Cities in U. S. A. and in Montreal, Canada and London, England

Window Models In Window Display



The window side of an attractive office is reproduced in this store window display of portable air conditioners set up in the heart of downtown Cleveland's busy shopping district by the George Worthington Co., distributor. Three dummy windows, complete with venetian blinds and

drapes provide a simple but effective background for showing three different kinds of room coolers as they appear installed in home or office. Lettering on back panels and window display cards offers selling points for the equipment, which is sold by a number of dealers.

Small Systems & Units Dominate NYC Sales

NEW YORK CITY—Seven hundred and forty-one air conditioning systems were installed in the New York area during the first seven months of this year, according to reports by distributors and dealers to Consolidated Edison Co. of New York.

Seven hundred and eighty-two self-contained units were used in connection with these air conditioning systems, of which 547 were 1½-hp. or less and 235 were 2 hp. or larger.

Indicative of the trend toward smaller installations is the fact that 555 systems installed were of 10-hp. capacity or less; 93 were from 10 to 20 hp., and 93 were 20 hp. or over. A tabulation of installations, by types of business, follows:

Residential	102
Airport	1
Banks	6
Barber & Beauty Shops	11
Clubs	4
Funeral Parlors	5
Hospital Room	1
Laboratories	2
Hotel Guest Rooms	8
Hotel Public Rooms	6
Office Buildings	5
Doctors' Offices	31
Offices, Misc.	162
Public Building	1
Restaurants	127
Showrooms	33
Department Stores	11
Retail Stores	92
Theaters	18
Misc. Commercial	10
World's Fair Exhibits	12
Miscellaneous	58
Brewery	1
Candy Mfg.	8
Fur Storage	9
Laboratories	2
Meat Packer	1
Photo Processing	1
Warehouses	4
Miscellaneous Industrial	8
Instrument Mfg.	1
Total	741

New Concern Builds Truck Refrigeration

MILWAUKEE—Manufacture of a line of refrigerating, air conditioning, and heating units for trucks hauling perishables has been started by the Sunday Air Conditioning Co., which recently moved here from Detroit.

According to J. J. Sunday, president, the company now employs five men in the manufacture of transport refrigeration equipment. Mr. Sunday came here last winter to install test units on trucks operating between Milwaukee and Florida.

Mr. Sunday reports that Milwaukee interests have bought out Detroit stockholders so that the concern would be located in the Wisconsin city permanently.

Factory Addition To House Compressors

ST. LOUIS—Monsanto Chemical Co. here is spending \$35,000 in erection of a single-story addition to the engine room of its plant at 1700 South Second St. to house the ammonia compressors and cooling equipment designed to provide for the growing refrigeration requirements of the plant. Stone & Webster Engineering Co. is handling the work. The addition will be a three-bay brick building with a monitor.

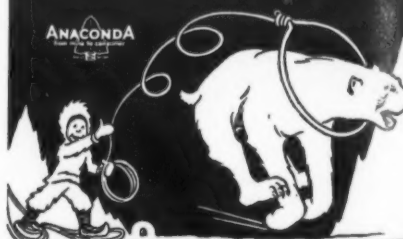
'Sneezes & Breezes' Advertise Cooling

BOSTON—"There are too many sneezes in these hot dusty breezes" was the catch line used to attract the public's attention to Fairbanks-Morse air conditioners in a recent advertisement appearing on the financial page of a Boston newspaper.

The line was uttered by a large bear, shown suffering from the burning heat of the sun and sneezing into a moistened handkerchief.

The copy stressed rest at night, efficiency during the day, and comfort always. No loss of time from summer colds guaranteed—the advertisement said.

Anaconda Copper Refrigeration Tubes for difficult jobs!



THE AMERICAN BRASS CO. FRENCH SMALL TUBE BRANCH General Offices: Waterbury, Conn.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words, four cents each. Three consecutive insertions, \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

EXPERIENCED ENGINEER, refrigeration and air conditioning, design and manufacture, desires opportunity for employment. Address Box No. 1255, Air Conditioning & Refrigeration News.

CAPABLE refrigeration and air-conditioning man, who thoroughly understands the business, ten years experience servicing, estimating and installations with sales ability, capable of taking charge of any department wishes to make change, will go anywhere; particularly interested in going to Tropics. Address Box No. 1256, Air Conditioning & Refrigeration News.

FREE LANCE designer and inventor with 25 years general engineering and creative design experience. Past 15 years as development engineer on refrigerating machinery, specializing on hermetically sealed compressors. Will accept appointment with responsible company on basis of ability to produce results. Address Box No. 1258, Air Conditioning & Refrigeration News.

For Information on Motors
FOR ALL TYPES OF
Air Conditioning and
Refrigeration Equipment
WRITE TO

Wagner Electric Corporation
441 E. PLYMOUTH AVE. ST. LOUIS, MO.

SHELL and FIN TUBE CONDENSERS
Combination of Water Cooled
Condenser and Liquid Receiver

KRAMER-TRENTON CO.
TRENTON, N. J.

Dayton
V-BELTS
Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.
THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts

FOR SATISFACTION—SPECIFY

"VIRGINIA" REFRIGERANTS

VIRGINIA SMELTING COMPANY
Located at tidewater
WEST NORFOLK, VIRGINIA

NEW

WHEEL PULLER
No. 5
Capacity
7" diam.

A simple, efficient tool for hard pulling jobs such as flywheels, fans and pulleys—universal for all make refrigerators. Rotating arms grip in any position—internal or external pulley—odd and even spoked wheels. Hex head power screw has knurled band for easy hand turning. Made of special steel, hardened and tempered. Fully guaranteed. Sold by mill supply and refrigeration jobbers.

J. H. WILLIAMS & CO.
225 Lafayette St., New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
REFRIGERATION TOOLS

MAN AT PRESENT employed as manager of small refrigeration supply jobbing business desires to make new connection. Would prefer to locate in the south but would consider any opportunity. References and any desired information gladly furnished. C. B. WEEKS, 378 Weybosset St., Providence, R. I.

POSITIONS AVAILABLE

WANTED: Manufacturer of refrigeration and air conditioning equipment located in Mid-Western State, wants Engineer to head department. Do not apply unless thoroughly competent and experienced. State scholastic and practical background and salary. Apply Box No. 1251, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

DIRECT FACTORY connection. Sell Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Refrigerating Units, to Meat Markets, Grocers, Taverns, etc. Financing arrangements to help sell. Write Dept. A for full information or see EHRICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

SEND FOR PRICES and literature on the General 1940 all streamlined refrigerator display case line. Over 40 years experience manufacturing good commercial refrigerators. On a comparative price test with other makes of equal specifications, prices are lowest in the country. GENERAL REFRIGERATOR & STORE FIXTURE CO., 5th & Bainbridge Sts., Philadelphia, Pa.

EQUIPMENT WANTED

WANT TO BUY—25¢ per day, Coin Meters. Used or reconditioned. Write, giving full details. W. G. SHELTON CO., 1709 Locust St., St. Louis, Mo.

EQUIPMENT FOR SALE

DEALERS! SERVICEMEN! Export Buyers! Get in touch with us for every make of used refrigerator at low prices. Our refrigerators are sold "AS IS," exactly as received. We sell Frigidaire, General Electric, Westinghouse, Kelvinator, Electrolux, Crosley, Norge, Coldspot, Leonard, Hotpoint, Stewart-Warner, Spartan, Copeland, Trucold, Gibson, Majestic, Grunow, Apex, Universal, Mayflower, PILGRIM REFRIGERATION CO., 45-33 50th Street, Woodside, Long Island, N. Y.

CARRIER, SERVEL, Universal, 1/2 and 3/4 H.P. air and water cooled condensing units new in original factory crates, complete with motor, belts, pulleys, water valves, starters, etc. Fully charged with "F-12"—ready to operate. A.C. or D.C.—110 or 220 V. At less than manufacturer's cost. SCHEMAN CONTRACTING SERVICE, 239 W. 39th St., New York, N. Y.

FRIGIDAIRE compressor bargains. 1 hp. Frigidaire "C" compressor units—\$15.00 without motors—\$38.50 complete. 1/2 hp. Frigidaire "N" units—\$10.00 without motors—\$23.00 complete. 1/2 hp. Frigidaire "K" units—air cooled—\$17.50 complete. 10% discount in lots of six. Wanted single phase, two phase, three phase, and D.C. motors. EASTERN SALVAGE COMPANY, 208 Lafayette St., New York City.

BRAND NEW Westinghouse one ton low-sides complete with fans, coils, expansion valves, manual controls, heat exchanger, and cabinet \$32.50 each. Brand new General Electric 1/2 H.P. and 1 H.P. high-sides also available. Write for details. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

AVAILABLE: Overhauled 1/2 H.P. twin cycle Frigidaire units complete with pressure switch—\$17.50 each, f.o.b. Philadelphia. Each unit crated and fully guaranteed. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

REPAIR SERVICE

COMMERCIAL AND DOMESTIC controls reconditioned like new at a small cost. All work guaranteed for one year. We also repair all types of relays with same guarantee. UNITED REPAIR SERVICE, 342 West 70th St., New York, N. Y., TRafalgar 4-2557-8.

FREE HERMETIC CATALOG complete with prices on refrigerator units, rebuilding and exchange service. General Electric, Westinghouse, Majestic, Frigidaire and a complete stock of Grunow compressors and parts. Immediate shipment. For your copy specify catalog A. SERVICE PARTS COMPANY, 1101-3 North 24th Avenue, Melrose Park, Illinois.

CONTROL REPAIR SERVICE. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALELECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

BUSINESS OPPORTUNITIES

SERVICE BUSINESS for sale. Central Illinois town 50,000 population 20-mile radius, established several years. \$3,500.00 volume so far this year. Service truck, gas drums, service parts and small tools. Will sell to someone knowing business only. Price \$900.00. Have other business interest. Address Box No. 1257, Air Conditioning & Refrigeration News.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER, (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

Drug Chain Expands Cooling

BALTIMORE—With the opening of its newest completely air conditioned unit on Loch Raven Blvd., Read's Drug Stores now operate 29 cooled stores, out of a total of 47 in the chain.

'Block-Long' System Installed In N. Y. C.

NEW YORK CITY—A block-long air conditioning system on Broadway from 96th to 97th Sts., serving the Riverside and Riviera theaters, has been completed by engineers for Carrier Corp.

The huge system, which necessitated laying of a special power line for electricity, permits individual control of any section of either of the two buildings. A Carrier centrifugal machine of 214-ton capacity provides cooling for the system.

A system patterned along the same lines as the Riverside and Riviera theater plant serves air conditioning at the New York World's Fair to both the Carrier "Igloo of Tomorrow," and the adjacent du Pont exhibit.

The system just completed at the Riverside and Riviera theaters provides a complete change of air every 30 seconds—cooled, filtered, and purified. The two-building system took four months to install. It was necessary to run the special power line underground from 96th to 104th Sts. and across to Amsterdam Ave. because of the size of the buildings and the amount of electricity required to operate the plant.

Boston A. C. Bureau Plans Own 'M' Day

SWAMPSCOTT, Mass. — "Seventh Annual Maneuvers" of the Air Conditioning Bureau of Boston will be held here on "M-Day," when members and guests of the bureau hold their annual outing at New Ocean House here Sept. 11. Following the military trend of the present times, Daniel Ricker, president of the bureau, will act as "Commander-In-Chief" for the occasion.

The "headquarters staff" will be comprised of Percy A. McKittrick, treasurer, Air Conditioning & Refrigerating Machinery Association; C. P. Yaglou, chairman, Massachusetts chapter, A.S.H.V.E.; Oliver C. Ekel, chairman, Boston section, A.S.R.E.; J. H. Brodie, president, Boston Oil Burner Association; Dudley Harmon, vice president, New England Council; William M. Rand, past president, Associated Industries of Massachusetts; Charles E. Lee, secretary, Boston Real Estate Exchange; C. H. B. Hotchkiss, editor, Heating & Ventilating; L. K. Spink, president, Boston chapter, National District Heating Association; and James Vaughn, president, Metropolitan Electrical League.

"Aides" to the "Commander-In-Chief" will be E. Daniel Johnson, Henry R. Sewell, and Rudolph Sommers, all past presidents of the bureau. Forrest Paige, treasurer of the bureau will be "aide-de-camp."

The propaganda division is headed by Bayard W. Robertson, Boston Edison Co.; the anti-aircraft of golf division by Roland G. Hopkins, president, Boston Ice Co.; infantry, or field sports division, C. J. Cox, president, Cox Engineering Co.; air raid precautions division, to arrange indoor maneuvers in case of an attack by the weather man, headed by Harry Troutwine, Standard Air Conditioning Corp.

Coast defense division, to provide facilities for water maneuvers, Charles F. Spencer, Walsh-Spencer Co.; espionage division, in charge of entertainment and routing worries from the army's mind, M. M. Murray

Weiss, president, W & L Engineering Co.

Munitions division, to secure an adequate supply of prizes, E. V. Wetmore, sales manager, Westinghouse Electric Supply-Wetmore-Savage Division; tank division, to supervise the refreshments, Howard Parks, Parks-Cramer Co.; military police, to see that all enjoy the occasion, W. D. Wilkinson, New England Power Service Co.; conscription division, to assess the necessary defense tax, Forrest Paige; finally the motor corps, to arrange transportation, Don Edwards, General Heat & Appliance Co.



Ready, Willing, Able
TRAINED MEN
Available!

It's easy to get the right man for your job without trouble, expense or delay. Use the U.E.I. Free Placement Bureau. National service. For over 13 years U.E.I. graduates have made better employees for all positions requiring technical knowledge or mechanical ability. We have the man you want. Phone, write or wire us.

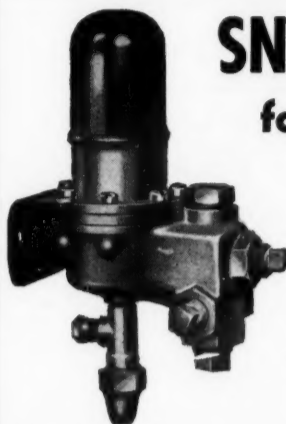
UTILITIES ENGINEERING INSTITUTE
404 N. Wells St. Est. 1927 Chicago, Illinois

THE BUYER'S GUIDE

SNAP-ACTION VALVE

for Multiple Temperature

by *Aminco*



A marvelous precision valve designed for systems with more than one coil, operated from the same compressor. Any variety of units such as ice cream cabinets, soda fountains, back bars, water coolers, candy counters, beer coils, storage rooms, etc., may be connected to a single compressor unit by the use of Aminco Snap Action Valve.

Adjustable from 20" of vacuum to 63 pounds pressure. Differential 7 lbs. min. to 29 lbs. max. May be used with any refrigerant except ammonia. For flooded as well as dry gas types or any combination of either. Free from bellows strain.

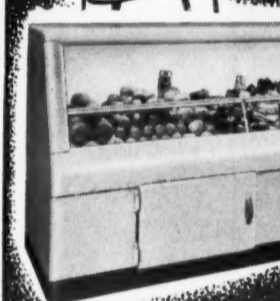
Send for Bulletin No. 17

AMERICAN INJECTOR COMPANY

1481 Fourteenth Avenue
Pacific Coast: Van D. Clothier, 1015 E. 16th, Los Angeles, Calif.
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago, Ill.

OPEN for Business

The Crispeteria is open OPEN for compelling, attention-getting display of produce. OPEN for customers loaded down with purchases, who can't open bulky doors OPEN for easy handling and selection. . . OPEN FOR BUSINESS! OPEN so that grocers are eager to install one. OPEN a new field for profits by selling the Crispeteria.



KOCH REFRIGERATORS

NORTH KANSAS CITY, MO.

Write today for details and open territories.

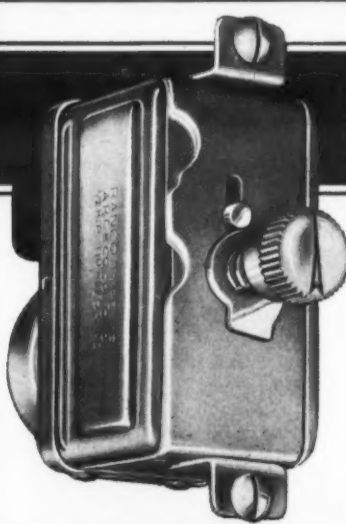
COLD! --and PURIFIED

For nearly 40 Years Puro has specialized in drinking water equipment. Many water coolers supply cold drinking water—no other offers the advantage of a self contained purifier—a sales point that means profit to dealers everywhere. Write for complete information about our complete line for all purposes.



PURO
TRADE MARK

ELECTRIC WATER COOLERS
Puro Filter Corp. of America, 440 Lafayette St., New York.



FOR STRENGTH
FOR APPEARANCE



FOR PRECISION
FOR PERFORMANCE

Ranco brought to the refrigerator industry a development of outstanding value—with the introduction of Stainless Steel Controls. For Stainless Steel construction at it's best, ask your jobber for

Ranco

STAINLESS STEEL REPLACEMENT CONTROLS



Dealers
Wanted for
Midwestern
and Southern
States

CAMPBELL REFRIGERATOR CO.
Milwaukee, Wis.



Provide Extra Profits
Sure Repeat Orders
Sold Only
Through Dealers

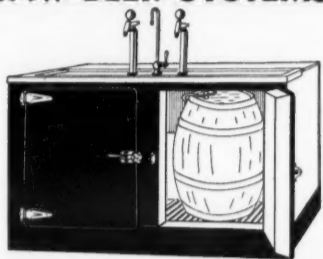
ALL-STEEL-EQUIP COMPANY, INC.
109 Kensington Avenue • Aurora, Illinois

SPORLAN
VALVES

BAR-BOY --- DIRECT DRAW BEER SYSTEMS

BUILT RIGHT -- PRICED RIGHT SIMPLE TO INSTALL

Available in 2-3-4 Keg Sizes.
Ice Water Faucet Standard On All Models.
Bottle Compartment And Ice-Maker Optional
Equipment.
Full Line Of Beer Equipment, Including
Walk-In Type Pre-Coolers And Dry-Storage
Bottled Beverage Coolers.



INQUIRE TODAY!

FOGEL REFRIGERATOR COMPANY Since 1899
16th & Vine Sts., Phila., Pa.

You can SPEED UP your flaring!



The new Imperial Flaring Tool with slip-on yoke, provides ease and speed of operation never before attained in a flaring tool. The yoke is made so that it can be slipped on over the bar without twisting or turning. The inside edges of the yoke are slotted so that once in position a slight turn holds it in place on the bar. Yokes No. 135-F Imperial Flaring Tool, flares 1/4", 3/8", 1/2", 5/8" O. D. tubing. Price each.....\$4.25

are made of forged steel. An additional advantage of this tool is the construction of the bottom of the yoke, which permits flares to be made where there is little space between nut and the end of tubing. Fin tubing sometimes offers this problem. Flares soft copper, brass or aluminum tubing.

Also available for all other sizes of tubing.
THE IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago, Ill.

IMPERIAL

VALVES • FITTINGS • TOOLS
CHARGING LINES • FLOATS
STRAINERS • DEHYDRATORS

ORDER FROM
YOUR JOBBER



MAKE BIGGER PROFITS

TYLER full line dealers and distributors are setting new records for sales and profits. Tyler's big line enables you to completely outfit modern food stores and open up hundreds of live prospects in other fields. Famous Welded Steel construction. Phenomenal values. Display cases, Reach-In, Walk-Ins, Vegetable Displays, and special type refrigerators to fit all needs. Every one a super value. Write for details.

TYLER FIXTURE CORP., Dept. E, Niles, Mich.


New York Office: 881 W. 76th St.
Boston Office: 883 Beacon St. Chicago Office: 1663 W. Ogden Ave.

TYLER
WELDED STEEL Refrigerators

Fan Blades and Blower Wheels



THE TORRINGTON MANUFACTURING CO. of TORRINGTON, CONNECTICUT



Its exclusive oval shape provides a really natural gripping surface.

HENRY
BALANCED-ACTION
DIAPHRAGM PACKLESS VALVES

RECOMMENDED AND SOLD BY LEADING JOBBERS

HENRY VALVE CO.
1001-19 N. SPAULDING AVE.
CHICAGO, ILL.

ACE HARD RUBBER EQUIPMENT

is Economical... ACE DOOR ASSEMBLIES are interchangeable and may be installed in display cabinets with a substantial saving in time and labor. They are so dependable as not to require the usual replacement or repairs. Being made in a range of thirty-four sliding-door sizes and types ACE equipment provides for every style of showcase required in the industry. Our catalog gives complete specifications and is available free on request.

AMERICAN HARD RUBBER CO., 11 MERCER ST., NEW YORK, N. Y.
Akron, Ohio... 111 West Washington Street, Chicago, Illinois

FOR REFRIGERATED DISPLAY CABINETS

Plants Planned

NEW LONDON, WIS.

NEW LONDON, Wis.—The New London Ice & Fuel Co. is erecting a new locker plant to contain 350 units, each with a 400-lb. storage capacity.

FROMBERG, MONT.

FROMBERG, Mont.—W. V. Miller of Fromberg plans construction of a 50 & 76-foot building here to house a cold storage locker plant.

OMAHA, NEB.

OMAHA, Neb.—Fairmont Creamery Co. will construct a \$25,000 quick-freezing poultry processing plant here.

15 Locker Plants Installed In Texas This Year By One Company Alone



Members of the staff of Baker Ice Machine Co. of Fort Worth study plans for a new locker plant installation. Left to right are: A. M. Keyser, sales engineer; J. T. Morse, assistant chief of drafting department; J. T. Threadgill, chief engineer; and C. M. Wentzel, sales engineer.

FORT WORTH, Tex.—Construction or installation of 15 locker plants in Texas so far this year by Baker Ice Machine Co. of Fort Worth is evidence enough that the refrigerated locker storage business is becoming an increasingly important factor in the Lone Star State, believes J. T. Threadgill, chief engineer for the Baker company.

Approximately 75% of these 15 jobs called for brand new buildings. Three plants were installed in existing buildings and four of the plants

are functioning as cooperatives.

Especially in west Texas is interest running high, Mr. Threadgill reports. Both farmers and business men in this area are showing increased enthusiasm for the locker plant idea both as an economic facility and as an investment, he says.

Being slow to take to the locker business has had one definite advantage for Texas, Mr. Threadgill contends, for as a result most of the plants in the state are of the most modern type.

Mich. Locker Men Adopt a Code

LAPEER, Mich.—A combined code of ethics and membership certificate was adopted by acclamation by members of the Michigan Refrigerated Food Locker Association at their last quarterly meeting at Eaton Rapids.

When signed by the plant operator and by the president and secretary

of the association, this document is to be displayed by every member of the association in his place of business as an indication of his affiliation with the state organization and as a constant reminder of the ethical standards he has agreed to uphold.

Complete text of the membership certificate and code follows:

"Having been honored by membership in the Michigan Refrigerated Food Locker Association, it becomes my duty, as well as desire, to uphold this our Creed:

"To place public service above all else, and to never forget the obligation bestowed upon me by the business in which I am now engaged; An obligation for common good in the betterment of living conditions."

"To consider the welfare of those who come to me for counsel as a matter of first importance, and to let neither wealth nor poverty nor position in life influence me in the slightest degree, in the achievement of every detail essential to their health and happiness."

"To consider Heaven's first law, 'Cleanliness,' as a requirement second to none in the maintenance of our establishments, keeping ourselves and all in our employ physically clean, mentally alert, and in deliberation unquestioned."

"To achieve that perfect understanding which every service requires, and, if within our power, to see none go away dissatisfied."

"To so price our service, accessories, and rent as to be obtainable by all, as reasonable as good business judgment will permit."

"To always keep abreast with the new phase of our business; to acquire all possible knowledge relating thereto, that we may better serve our fellowmen."

"I will publicly display this Code of Ethics within my place of business, and I pledge the Michigan Refrigerated Food Locker Association my word of honor that I will never cause the Association of which I am now a member to suffer humiliation by any unethical act of mine, or by displaying this code after I have ceased to be a member in good standing, either by expulsion or for the non-payment of dues."

"All this I accept and acknowledge without any secret reservation whatsoever. By virtue of the power vested in the secretary of the Michigan Refrigerated Food Locker Association, I relinquish to him, on demand, this, my Code, together with all the rights and privileges in this Association."

Development of Frozen Foods Is Aiding Both Farmer & Grocer, States Marketing Executive

SHEBOYGAN, Wis.—A boon to both the farmer and the retail grocer, and a business unlikely to be disturbed by turbulent conditions abroad—that's how Donald Barr, manager of the marketing department of Frosted Foods Sales Corp., packer of Birds Eye foods, described the frozen food industry to the Wisconsin Food Dealers' Association here recently.

"Produce purchases necessitated by the marketing of more than sixty varieties of frozen fruits and vegetables, seafoods, meat, and poultry," he explained, "have opened up a new type of market to many farmers. This year more than 100,000 acres of land are being harvested to meet Birds Eye requirements. And the quick-frozen foods industry plans to pack 25 to 50% more foods for its

1940-41 needs than it did last year."

As for the retail grocer, Mr. Barr had this to say: "Every day brings more customers to appreciate quick freezing as a modern miracle in the preservation of foods. Many retail stores have strengthened their business through a fast-moving frosted foods department. Others, previously unable to cope with consumer demands for a more varied line of products, now offer a complete food service throughout the entire year."

Mr. Barr also commented on the effect of international unrest on the frozen foods industry, pointing out that this industry's market is almost entirely domestic. "Within the borders of North America," he declared, "lies one of the greatest potential markets any industry ever attempted to win."

Plants Under Way

ELLENDALE, N. D.

ELLENDALE, N. D.—A. G. Houghton has started construction of a 300-locker cold storage plant here. Of tile construction, the plant is to be opened in September.

PLATTSMOUTH, NEB.

PLATTSMOUTH, Neb.—Roy Taylor plans to install a refrigerated locker system in the cold storage plant which he is constructing here.

PRESTON, IOWA

PRESTON, Iowa—The Francois Groceries are now constructing an \$8,000 cold storage locker plant here.



REPRESENTS 50 YEARS OF COIL EXPERIENCE

You are assured—

- Positive ratings
- Unsurpassed performance
- Right Price

REMPE CO.
342 N. SACRAMENTO BLVD. CHICAGO, ILL.

Record Holder!

The kind that wins and holds critical buyers everywhere

ROTARY SEAL
Replacement Units



Rotary Seal Co., Chicago, Ill.

TRADE MARK

DEPENDABLE COILS
with the "FRICTION-GRIP" HIGH CONDUCTIVITY BOND BETWEEN FIN AND TUBE

McQuay-Norris
MINNEAPOLIS, MINN.

Mueller Brass Co.
LITTLE GIANT
Cuts Power Costs
Watch for our Announcement

Use CHICAGO SEALS for seal replacements
A complete line in all sizes

CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

BUNDY TUBING
DETROIT

PENN AUTOMATIC CONTROLS AND SWITCHES
Protect the reputation of your product
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

GALE COMPRESSORS
Single and twin cylinder units. Engineered and manufactured to highest standards. Write for GALE PRODUCTS
1635 Monmouth, Galesburg, Ill.

ACME INDUSTRIES, INC.
JACKSON MICHIGAN
HEAT INTERCHANGERS

Entrance to World's Fair
New York's Popular
HOTEL LINCOLN
44th to 45th Sts. at 8th Ave.
1400 rooms from \$3. Each with Private Bath, Servidor and Radio. Four fine restaurants, acclaimed for superior service and cuisine.

MARTA KRAMER, President
JOHN L. HORGAN, Gen. Mgr.

IN THE CENTER OF MID-TOWN NEW YORK

What's New

Descriptions of some of the brand new items for the refrigeration and air conditioning, and major appliance fields.

Unit Product Cooler Has No Manifolds

TRENTON, N. J.—No manifolds and no soldered return bends are the new and exclusive main features of the "Coolmaster" unit product cooler introduced this summer by the Kramer Trenton Co.

Four different tube diameters are used, and each coil is built with the tube size best suited for its refrigerating capacity, company officials declare.

Other features in the construction of the unit cooler are an integral heat interchanger to afford maximum coil capacity and a dry suction line, one man suspension brackets for easier mounting, and carefully balanced fans direct connected to totally enclosed motors.

In the use of the four different diameter tubes and the elimination of manifolding, Kramer Trenton engineers claim to achieve positive refrigerant distribution with normal friction drop in the coil.

In addition to achieving even distribution of the refrigerant, the Kramer Trenton engineers declare that this type of design eliminates difficulties that may arise from incomplete defrost. It is stated that where one refrigerant pass of a manifolded coil does not defrost completely during a single defrost cycle, it may become the controlling factor and starve the remainder of the coil when a thermostatic valve is used.

All "Coolmasters" rated up to 5,000 B.t.u./hr. are built with 1/2-inch O.D. tube; in sizes from 5,000 to 10,000 B.t.u./hr. they are furnished with a 3/4-inch O.D. tube; in the capacity range from 11,000 to 18,000 B.t.u./hr. the tube size is 1-inch O.D.; and above 18,000 B.t.u./hr. capacity the units are built with a 1 1/4-inch O.D. tube. In all instances there are no manifolds, and the refrigerant pass is continuous.

The 'Harvester'



The triple louvered platform light is one of the chief features of this new "Harvester" range, nucleus of Westinghouse's fall electric range program.

Master Control Is For Commercial Buildings

MINNEAPOLIS — Announcement of the T14A Weatherstat master controller for heating systems in commercial buildings has been made by the Minneapolis-Honeywell Regulator Co., here. Designed for outside mounting, the Weatherstat functions like a miniature building, in that it has its own thermostat and heating plant, the latter in the form of an electric coil.

The control governs heat input to the building as determined by outside temperature, wind direction, wind velocity, and solar radiation. The unit provides a continuous flow of steam during lower outdoor temperatures and for two position operation of a modulating motorized valve during higher outdoor temperatures.

The continuous flow of steam during lower outdoor temperatures is said to prevent expansion noises in the piping, and eliminate cold radiators with resultant stratification of air.

The Weatherstat is designed to control single or multiple zone jobs with each zone having a separate control panel. The system is applicable to two-pipe heating systems only, and cannot be applied to one-pipe systems.

Due to the fact that the amount of steam applied to the system is varied, it is necessary that all radiators be properly orificed, and that a relatively constant pressure differential be maintained between the supply side of the motorized valve and the system return.

Asthma Relief Claimed For Winter Ventilator

CHICAGO—An electric window ventilating unit, known as the "Ventil-air" has recently been announced by Fairbanks, Morse & Co. Retail price of the new conditioner has been established at \$79.50 f.o.b. Chicago.

The F-M Ventil-air is said to provide positive relief for asthma and hay fever sufferers. It not only recirculates and filters the inside air, but also expels smoke and stale air.

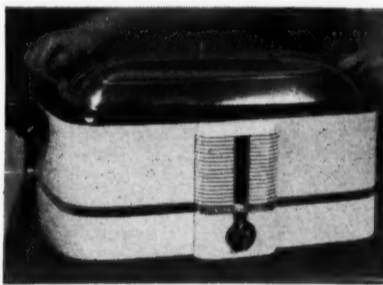
During the winter heating season deflectors may be set to direct incoming cool air toward the ceiling, where it mixes with warm air. Outside air may be taken into the room in any desired amount or eliminated entirely.

Maximum air delivery is 500 c.f.m. at top speed, with a minimum air delivery of 90 c.f.m. at low speed. The unit, which measures 10 1/2 inches high and 13 1/2 inches deep, may be used in any window from 24 to 48 inches wide.

'Tel-a-Cook' Lights Now Used on Roaster

BRIDGEPORT, Conn. — Tel-a-cook lights, which have been used for some time to indicate cooking temperature on G-E ranges, have been incorporated in a new automatic roaster just announced by the appliance and merchandise department of General Electric Co. Complete range of cooking temperatures from 150 to 550° is controlled by an automatic thermostat, and the Tel-a-cook lights in various colors tell at a glance at what degree the control has been placed.

New styling for the roaster includes the addition of an encircling chrome band and chrome ribs on the control box. Dial of the thermostat is divided into color segments, corresponding to those on the G-E



range, and is visible at all times through illumination by a Mazda lamp. The thermostat knob carries the temperature markings.

The new roaster has a capacity, in its removable well, of 18.2 quarts, and is so proportioned that it will accommodate a 20-lb. turkey, eight quart jars, or 11 pint-size jars for canning. An extra shelf permits the baking of two pies or two layer cakes at one time. Heavy aluminum lid is hinged so that it may be tilted back without being completely removed. Circulation for the proper browning of fowl and roasts is controlled by a sliding cover vent.

The roaster is packed with blanket-type glass wool insulation to a thickness of more than an inch. There have been no changes in the design of the 1,320-watt heating element. New type of sealed-in thermostat has had a two-year field test.

Broiler griddle attachment consisting of heating unit and reflector with adjustable hinge, smokeless inset tray, and drip pan is optional equipment for cooking griddle cakes and for broiling. Utensil sets in heat-resistant glass or gray enamel are standard equipment.

Hardy-MAYFLOWER

commercial compressors

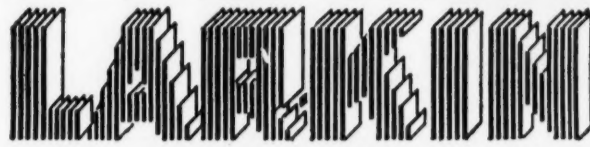
are Efficient, Sturdy
and Reliable

Hardy Manufacturing Co., Inc.
126 Davis Ave., Dayton, Ohio.

*Sells Faster Because
It Cools Faster!*

IDEAL SPEED COOLER

Ideal Beer Cooler Co.
2953 Easton Ave., St. Louis, Mo.



Refrigeration Products

● Makes sales you couldn't get before. Build profits and prestige on the basis of customer satisfaction. Sell: Patented CROSS-FIN COILS Bare Tube Coils Humi-Temp Forced Convection Units Instantaneous Water Coolers Steel and Copper Vacuum Plate Coils Disseminator Fans Heat Exchangers

See your jobber or write today for new catalog

LARKIN COILS, INC., 519 Memorial Drive, S. E., Atlanta, Ga.

Originators of The Cross Fin Coil

A SINGLE CONTROL *Universal in Application*

THE NEW **POLARTRON** FOR PRESSURE CONTROL UP TO 1 H.P.A.C.

Separate "On and Off" Knobs • Universal Range • Capillary Pressure Connections • Power Models in Stock • Minimum Free Service • "Cooling Control" on Call but no Cost to • No Short Cycling • Polartron Equipped Compressors can be Connected to Produce Frost-Free Constant Cold

Note these Advantages

MINNEAPOLIS-HONEYWELL REFRIGERATION CONTROL

Chieftain

Why Chieftain Hermetics?

1. They are completely sealed and tamper proof.
2. They are correctly designed and constructed for long, trouble-free service.
3. They have an enviable record of service in the field.

TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
Canadian distributor: Refrigeration Supplies Co., Ltd., London, Ontario

REFRIGERATION and AIR CONDITIONING PARTS and EQUIPMENT

TO SERVE YOU MORE QUICKLY **12** CONVENIENTLY LOCATED WAREHOUSES

WRITE FOR CATALOG

THE HARRY ALTER CO.
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS
3 CHICAGO BRANCHES, NORTH, WEST, SOUTH

NEW YORK
BROOKLYN
BRONX
JAMAICA

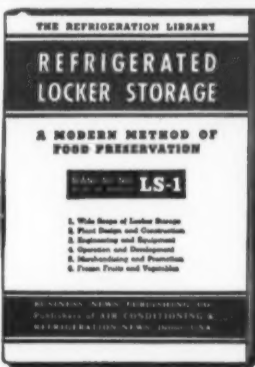
NEWARK
DETROIT
CLEVELAND
ST. LOUIS

THE SIGN OF FAST SELLING
COMMERCIAL REFRIGERATORS

QUALITY has made SHERER'S name a by-word with commercial dealers. A complete line of sure-fire leaders, plus whole-hearted factory co-operation, demands investigation as a profitmaker for you.

Write for dealer plan
SHERER-GILLET CO., MARSHALL, MICHIGAN

SHERER
DISPLAY AND STORAGE EQUIPMENT
FOR RETAIL FOOD STORES
SHERER-GILLET CO.
MARSHALL, MICHIGAN



Locker storage methods

Here is a book you will find extremely helpful and practical dealing with locker storage plant construction and the merchandising methods being used by experienced operators in storing meats, fruits, and vegetables.

Order from your jobber—or send direct. If book is not satisfactory return within 10 days and your money will be refunded. Price \$1.00.

Business News Publishing Co.
5229 Cass Ave., Detroit, Mich. Date.....1940

Gentlemen—Please ship me Refrigerated Locker Storage, Manual No. LS-1.
☐ Enclosed find check. ☐ Ship C.O.D. and I will pay the postman.

Name

Company

Address

KERO TEST

Valves and Fittings
The Standard of the
Industry

Kerotest Manufacturing Co.
Pittsburgh, Pa.

Filtrine

WATER COOLERS—FILTERS
to comply with
U. S. NAVY—ARMY
Specifications
Filtrine Mfg. Co., Brooklyn, N. Y.

Anaconda Copper Refrigeration Tubes

Dependable!



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices, Waterbury, Conn.

HOTEL

BARLUM

Now one of the
**ALBERT
PICK
HOTELS**



21 FLOORS OF
OUTSIDE
ROOMS
EACH WITH
COMBINATION
TUB & SHOWER

\$2 DAILY
From SINGLE

CADILLAC SQUARE
AT BATES STREET

DETROIT

Boom Seen For Frozen Foods But Experts Warn Improper Care May Retard Progress

(Concluded from Page 1, Column 4) or less of food. Such a package is designed for the majority of the nation's families, which consist of four or five persons. Larger packages are not used up, and therefore cause left-overs, which the average homemaker dislikes, Mr. Stevens continued.

Several merchandising "don'ts" must be considered by wholesalers choosing a line of frozen foods, Mr. Stevens told the meeting. It is not advisable to handle goods, he said, that are:

"Improperly frozen. When foods are frozen improperly they deteriorate quickly, even though they may be in good condition when leaving the packing plant. Quick freezing involves minute accuracy, faithfulness to every detail. The final and proper quick freezing test is the way the frosted product looks and tastes when served to the consumer.

"Improperly stored. Frosted foods demand exact storing at unvarying temperatures, which in turn compels meeting certain conditions that require more equipment and facilities than do ordinary food storages.

"Improperly transported. Insulation of trucks and vehicles must be adequate to meet all sets of conditions. This implies proper equipment, in tip-top working order.

"Poorly packaged. Poor packaging results in dessication and dehydration. Dessication is the gradual evaporation of moisture from such products as fish, meats, and poultry. Dehydration tends to carry away

natural juices. Customers buy poorly packaged frosted foods only once.

"Improperly displayed. Customers buy items they can see and reach in super-markets. Distributors should concentrate on super-markets which give visibility and accessibility to the frozen foods counter or case.

"Improperly cared for by retailer. A distributor should not service a dealer unless the dealer has a good refrigerator or ice cream box. Quick frozen foods must be properly cared for by the retailer as well as by the distributor and packer."

As an educational feature of the session, W. D. Jordan, sales manager of Liquid Carbonic Corp., demonstrated the cell preserving qualities of quick freezing by "dunking" live goldfish in liquid air at a temperature of 300° below zero. Frozen in a solid block of ice within a few seconds, the fish were later thawed out and restored to their original state, swimming about in the water as though nothing unusual had happened.

Speakers other than Mr. Stevens who addressed the frosted foods session included: Roy M. Hagen, California Consumers Corp., president of the Association of Refrigerated Warehouses; Henry W. Conner of John H. Dulany & Son, Fruitland, Md.; G. A. Dotson, R. D. Bodle Co., Seattle; Dr. Mary E. Pennington, refrigeration consultant; Dr. D. K. Tressler, chief of the New York Agricultural Experiment Station; Van Reneslaer Greene, New York City refrigerating engineer.

Cooled Cars Find Market In Texas

(Concluded from Page 1, Column 2) ard line have been received with genuine interest by the buying public, and that in spite of time limitations, an excellent sales record has been registered by his staff.

Because of favorable climatic and financial conditions, Texas presents an unusually favorable market for air conditioned cars, Mr. Godley says.

People in Texas need air conditioned cars—and they have the money to buy them.

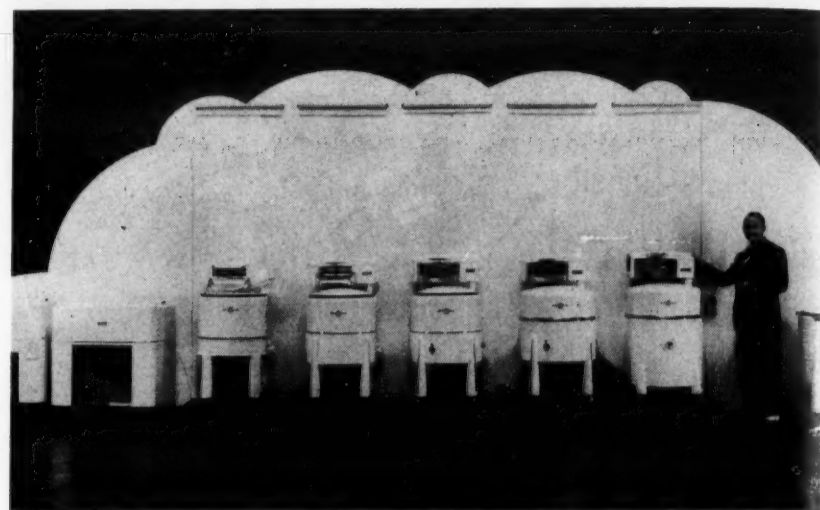
Packard-Dallas, Inc. has a man trained in the mechanics of refrigeration on the company's service staff, to give special attention to air conditioned cars. The number of air conditioned cars in use has not yet required this man to devote his entire attention to this phase of service.

"The reaction among users which I have encountered," Mr. Godley states, "would justify a conviction that air conditioning of automobiles is proving successful, and that users of these cars are getting satisfactory service. I feel the refrigeration service man and automobile mechanic will do well to give every attention to this development."

New Dealership Is Organized In Boston

BOSTON—Commercial Refrigeration Co. has been organized here by Henry N. Landry and Walker C. Robertson at 140 W. Brookline St.

The New Manager Shows the New Line



T. J. Newcomb, manager of the household refrigeration and laundry equipment department of Westinghouse, made his first appearance as a "washer impresario" at the recent special distributor convention in Mansfield, Ohio. Leader of the line, the "Emperor" model, has a time dial which automatically shuts off power when the washing action is completed.

Vegetable Case Has New Door Feature

(Concluded from Page 1, Column 4) stantly along the bottom of the case and up into the food compartment through round perforations in the metal floor of the display compartment. The air returns for cooling through a special vent.

Under average conditions a 1/3-hp. condensing unit is required to provide proper refrigeration for the case.

Commercial Sales By Nema Group Shows Gain

(Concluded from Page 1, Column 4) European nations were not at war last July. Shipments abroad dropped to 509 units from last July's total of 807 units (in condensing units sold separately) while sales to Canada showed a slight increase.

In the self-contained equipment classifications a gain of around 25% was shown in water coolers and a 20% increase in beverage coolers.

Many Changes Listed In New Small Units Introduced By G-E Commercial Department

(Concluded from Page 1, Column 3) both suction and discharge valves in one removable assembly, designed to reduce clearance volume and maintain a high compressor efficiency. In the small units, the discharge valve is of the reed type, backed by a retainer shaped to conform to the natural reed flexing.

Suction valves are part of a single piece of Swedish spring steel, shaped like the gasket and fitting two steel dowel pins which assure proper location of the valve whenever it is re-assembled. Ring type valves are used in larger units. Valve efficiency is also enhanced by generous valve openings, and by undercutting of valve seats to allow them to open on a small pressure difference.

Air-cooled condensers are multi-row finned tubing on the small units, and multi-pass above 1/2 hp. On all except the small sizes, the shroud which distributes cooling air across the condenser is adjustable, so that uniform air distribution can be maintained even when the motor is shifted to adjust belt tension.

Water-cooled condensers are of the shell-and-coil type, composed of an outer steel shell housing a finned copper water coil. Another feature of the water-cooled condensers is de-oxidization of inside surfaces. During welding operations pure nitrogen gas is passed through the shell shell, preventing the formation of scale.

For the convenience of installation and service men, several useful new features have been incorporated in the new condensing units. Piping connections are all carried to the outside of the base. A suction line strainer is now provided as an integral part of the suction manifold to prevent scale from entering the compressor. All except the smaller sizes (below 1/2 hp.) are equipped

with a sight glass to indicate the oil level in the crankcase.

In addition, a receptacle is provided on units of 1 hp. and larger for a refrigerant liquid level indicator. This indicator, an ingenious device utilizing a magnet, is carried by the service man. When a refrigerant measurement is called for, he plugs the indicator into its socket and gets a direct reading of the refrigerant level in the condenser.

Of interest to the service man, incidentally, is the reduction in number of parts in the valve plate from 24, in the old design, to eight in the new (including all screws, lock washers, and gaskets).

Welded steel bases have been adopted for the new condensing units instead of the former cast-iron construction. This substantially reduces their weight, and improves their appearance.

Ever since the Ansul organization was born a quarter of a century ago, the Ansul Idea has been to combine the highest possible product quality with the most expeditious service and the most genuinely friendly customer relations. It is with the feeling that this idea has been largely realized that we say

ANSUL

... for certified quality attested by individual-cylinder analysis, for assured working performance, for prompt, understanding service, for a friendly eagerness to match the goodness of our Ansul products with honest helpfulness.

SULPHUR DIOXIDE
ICE-X
METHYL CHLORIDE
Agents for Kinetic's "Freon-12"

MARINETTE, WIS.

Look to



ANSUL CHEMICAL CO.

valves dependably control refrigeration...



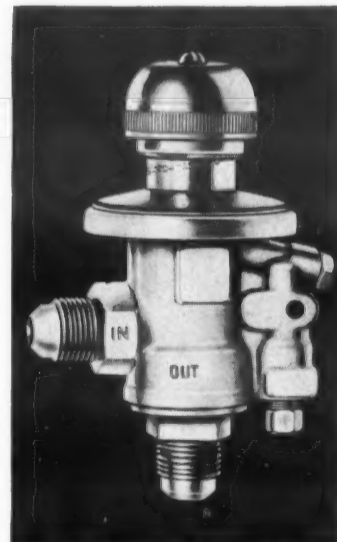
builds DEPENDABILITY into a full line of Thermostatic Expansion Valves, Solenoids, Suctional Pressure Valves, Temperature Control Sets, and the new "TRAP-IT" System-Protectors.

NEW A-P CONSTANT SUCTION PRESSURE REGULATOR VALVE

Keeps Constant Pressure in Suction Line where two or more units are run off the same compressor. New exclusive A-P Sleeve Valve construction—sensitive, non-clogging. Equipped with graduated pressure scale and adjusting knob.

★ Thousands of Service Men trust A-P Valve Dependability. They KNOW from rich experience that it means accurate, efficient Refrigerant Control on any job. And a service-free installation is their "bread and butter"—boosts their reputation for "knowing how"—increases their sales and helps keep their profits UP!

Maybe YOU know all about A-P Valve Dependability. But, if not, learn about it right now—from your Parts Jobber. He carries a complete stock.



Progressive Service Men Use and Recommend—and Aggressive Jobbers Stock and Talk—A-P Products.

AUTOMATIC PRODUCTS COMPANY

2450 NORTH THIRTY-SECOND STREET
MILWAUKEE WISCONSIN

Export Department



100 Varick Street, New York City